

1960

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

ANNUAL REPORT

AD 7123



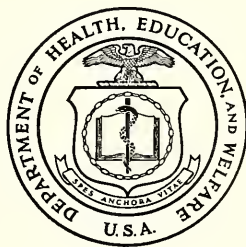
AMERICAN FOUNDATION
FOR THE BLIND INC.

1960


**U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE**

ANNUAL REPORT

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

As of June 30, 1960

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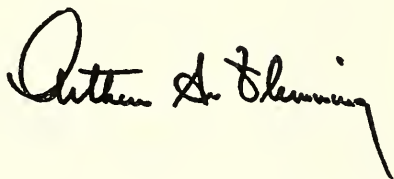
Letter of Transmittal

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,

Washington, D.C., December 1, 1960.

DEAR MR. PRESIDENT: I have the honor to submit herewith the annual report of the Department of Health, Education, and Welfare for the fiscal year ending June 30, 1960.

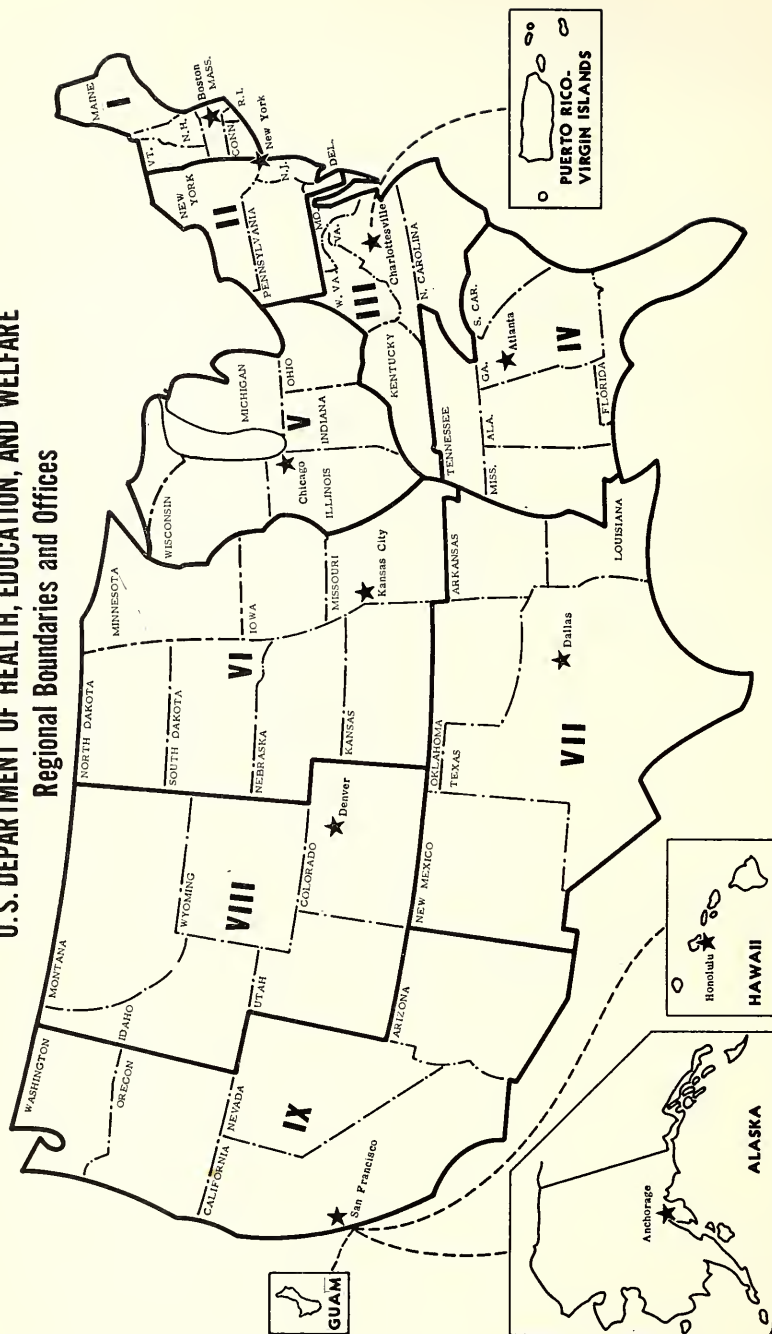
Respectfully,

A handwritten signature in dark ink, reading "Arthur A. Flemming". The signature is written in a cursive style with a large initial "A" and a long, sweeping underline.

Secretary.

THE PRESIDENT,
THE WHITE HOUSE,
Washington, D.C.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE Regional Boundaries and Offices



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[A detailed listing of the contents of this report, by
topic headings, will be found on pages 307-314.]

Office of the Secretary

THE OFFICE of the Secretary consists of the immediate offices of the Secretary and Under Secretary and also includes a number of staff functions that are concerned with matters of departmentwide importance.

The principal staff officers in the Office of the Secretary are the Assistant Secretary (assigned to matters concerning security, civil defense, and international activities); the Assistant Secretary for Legislation; the General Counsel; the Special Assistant to the Secretary for Health and Medical Affairs; the Assistants to the Secretary for Program Analysis and for Public Affairs; and the Directors of Administration, Field Administration, Special Staff on Aging, and Public Information.

In addition to administering the Department, the Secretary serves as the Chairman of several interdepartmental committees. These include: The Federal Radiation Council, established to advise the President with respect to radiation matters directly or indirectly affecting health; the Interdepartmental Committee on International Health Policy, which advises the Secretary of State as to objectives, establishing long-range goals, and planning programs in the field of international health; and the Federal Council on Aging, established to carry on continuing reviews of Federal programs for the aging and to make recommendations to the President and to the agencies as appropriate. The Secretary is a member of the President's Council on Youth Fitness.

The Under Secretary serves as the Acting Secretary in the absence of the Secretary and has also been given primary responsibility for specific programs in the Department. The Under Secretary coordinates, guides, and evaluates the Department's programs and activities in the field of aging; has general supervision of the Special Staff on Aging; serves as Chairman of the Working Group of the

Federal Council on Aging; and was responsible for the Department's activities concerning the 1961 White House Conference on Aging and the 1960 White House Conference on Children and Youth.

The Under Secretary represents the Department on a number of interdepartmental committees, including the Rural Development Program, a cooperative effort of Federal, State, and local governments, and civic leaders to help low-income rural families; the Interdepartmental Committee to Coordinate Federal Urban Area Assistance Programs in behalf of communities suffering persistent unemployment; the Outdoor Recreation Resources Review Committee; the Advisory Board on Economic Growth and Stability, which assists the Council of Economic Advisers to the President; and the Board of the Federal Woman's Award.

The Under Secretary also has received Presidential assignments as Chairman, President's Committee on Fund-Raising Within the Federal Service; Member, U.S. official delegation to Poland for an exchange visit with Polish officials; U.S. Delegate, United Nations Seminar on Participation of Women in Public Life, Bogota, Colombia, May 1959; and U.S. Delegate, Eleventh General Conference of UNESCO, Paris, France, November–December 1960.

Office of Assistant Secretary (Security, Civil Defense, International Activities)

The Department and its operating agencies participate directly in international activities through the United Nations and its specialized agencies, the Organization of American States and other inter-American groups, and a variety of governmental and nongovernmental, technical, scientific, and professional international bodies and regional associations which conduct programs of primary interest to this Department.

Department officials took part in 188 international meetings during fiscal year 1960. In addition, Department personnel have conducted surveys and studies for a wide variety of international agencies or served as advisers and specialists on technical assistance programs. In the foreign policy field the Department serves in an advisory capacity to the Department of State.

In fiscal year 1960, 6,256 foreign nationals from more than 60 countries and non-self-governing territories received training or orientation by agencies of the Department—an increase of approximately 26 percent over fiscal year 1959.

The Office of Internal Security is responsible for establishing and maintaining an effective internal security program and has both staff and operational responsibilities. The Office handled more than 5,000 security investigations during the year.

The Office of Defense Coordinator is responsible for day-to-day relations with all the defense activities of the Department and represents the Secretary on numerous planning and review boards and committees presided over by the Office of Civil and Defense Mobilization (OCDM). This Office also supervises a small permanent cadre at a relocated headquarters site and conducts an annual test program. Planning was advanced during the year for the conversion of Department manpower and resources to provide emergency health and welfare services in the event of an attack.

Office of Assistant Secretary (for Legislation)

This Office assists the Secretary and other officials in formulating the Department's legislative program and presenting it to the Bureau of the Budget and to Congress and also coordinates and reviews all legislative proposals on which the Congress requests the Department's views.

The Office of the Assistant Secretary (for Legislation) includes the Congressional Liaison Office, which serves as the focal point for communications between Congress and the Department; keeps the Secretary and Assistant Secretary advised of congressional reaction to and status of legislation in Congress; and advises officials of needs for development of information to assure proper congressional understanding of Department programs.

Since the creation of the Department in 1953, dramatic progress has been made in the national effort to achieve improved health, better education, and greater economic security. The administration has supported and obtained legislation to strengthen the Nation's educational system, broaden coverage and increase benefits under social security, expand the rehabilitation program which offers new hope for the disabled, strengthen our research efforts in science and medicine, provide more adequate health services and facilities, provide improved protection to consumers against harmful or mislabeled foods, drugs, and cosmetics, and provide improved medical aid to the aged.

Office of General Counsel

The General Counsel is the chief legal officer of the Department, and his office furnishes all legal services to the various operating agencies and units of the Department.

During fiscal year 1960, litigation arising out of the old-age, survivors, and disability insurance program continued to increase dramatically to the point where it exceeded in volume that in any other single area in which suits are brought against the Government.

Eighty percent of the 637 actions instituted in the past year involved the disability freeze and benefit provisions of the law—provisions which, with the recent removal of the 50-year age limitation, can be expected to generate more and more complex and time-consuming litigation.

Another area of ever-growing importance is that of enforcement of the Water Pollution Control Act. Formal hearings were called at Sioux City, Iowa, and St. Joseph and Kansas City, Missouri, involving the interstate effects of pollution originating at those cities. In the case of St. Joseph it became necessary to request the Attorney General to institute suit to secure abatement of pollution. This litigation, now pending in the United States District Court for the Western District of Missouri, is the first of its kind.

In important litigation under the Federal Food, Drug, and Cosmetic Act, the Office successfully defended the Department's action in revoking certificates for coal-tar dyes which had been issued before their danger became known. It won a protracted case against one of the most widely distributed nostrums for arthritis, Tri-Wonda, by establishing that the drug was a totally worthless one. It established the criminal responsibility of a medical doctor for dispensing amphetamines outside the course of his professional practice; it completed its program of finally closing the notorious Hoxsey Cancer Clinic in Dallas, Texas; and it is proceeding vigorously with an important test case involving slack-filled packages.

In the first court test in the program of school construction in federally affected areas, the Commissioner of Education's denial of a school construction grant to a local educational agency was upheld by the U.S. Court of Appeals on the ground that the agency had not met the showing required by law of an undue financial burden on its taxing and borrowing authority.

Special Assistant to the Secretary (Health and Medical Affairs)

The Office of the Special Assistant reviews the health and medical programs of the Department and advises the Secretary with respect to the improvement of such programs and on necessary legislation in the health and medical fields. Liaison is maintained with professional and voluntary medical, hospital, and other health organizations, with other organizations and associations concerned with health affairs, with other Government agencies, and with Members of Congress and congressional committees. Special service rendered by this office involves coordination of departmental activities in radiological health including staff work in connection with activities of the Federal Radiation Council.

Office of Assistant to the Secretary (for Program Analysis)

This Office aids the Secretary in identifying major emerging problems, policy issues, and gaps in Department programs; helps the Secretary appraise program needs and recommends program action including new legislation; provides staff assistance to the Secretary and other top staff in the review and development of Department policies; analyzes the Federal-State implications of programs and program changes; and maintains departmental liaison with the Advisory Commission on Intergovernmental Relations and with private foundations.

During the year three publications, the annual "Health, Education, and Welfare Trends," the monthly "Health, Education, and Welfare Indicators," and the annual "Handbook on Programs of the U.S. Department of Health, Education, and Welfare," were revised and expanded.

Office of Administration

This Office is the Secretary's principal staff unit for the Department's fiscal, management, personnel, and housekeeping operations. The Office carries out these operations through the Office of Financial Management, Office of Management Policy, Division of Personnel Management, and the Division of General Services. It participates actively in the formulation of Department policy; manages the Department's money; establishes Department personnel policies; is in charge of such specific functions as management analysis, incentive awards, and records management; and operates a central library and other services for the Department.

The Office of Management Policy staff conducts surveys and studies of significant organization and management problems which cut across operating agency lines. During the past year, this staff conducted a comprehensive survey of construction and leasing activities throughout the Department and developed materials to assist operating personnel in the preparation and review of construction proposals; in cooperation with the Division of Personnel Management, launched a study of data-processing needs for personnel management to develop a more economical and efficient system of processing personnel actions and to develop an improved personnel reporting system; and conducted an organization study of the audit of grants and contracts for research and training by nonprofit institutions as a basis for improvement of the audit function.

Two documents were issued by the Office of Management Policy to provide general guidelines for the improvement of data-processing activities within the Department.

The Division of Personnel Management is primarily responsible for providing overall direction, coordination, and policy leadership.

One development that has received wide attention in and out of Government is a plan for the gradual retirement of older workers who do not want to stop working altogether when they reach retirement age. Under this plan the length of the workday or workweek can be adapted to the current abilities and energy of the retiring worker, or other appropriate adjustments can be made in work activities.

The Office of Financial Management is concerned with all aspects of fiscal administration. It is responsible for analyses of the Department's program budgets, development of fiscal policy and procedures, and conduct of internal audit. The Director is also the Budget Officer for the Department and represents the Secretary at the Bureau of the Budget, with the Congress, and with operating agency heads during negotiations or hearings on budget matters.

During fiscal year 1960, this Office has conducted several reviews and made many evaluations. A major financial management study of Gallaudet College was made in cooperation with the Bureau of the Budget. A study was launched to investigate the requirements and problems in converting the payroll operation to an automatic data-processing system.

The Division of General Services is responsible for the development and administration of departmental policies and procedures in the areas of real and personal property management, procurement and supply management, printing management, communications, library services, and visual aids. The Division is also responsible for the administration of a working capital fund which is the financing medium for the bulk of administrative services provided for headquarters' units.

In fiscal 1960 the Division issued new and revised policies and guidelines to improve administrative functions. A major step forward was the modernization of the Department's printing plant to afford better and more timely service to expanding operating programs.

Office of Field Administration

This Office is responsible for the general supervision and coordination of the activities of the Department's nine regional offices and provides specialized services through four divisions.

The Regional Directors, as the principal representatives of the Secretary in their respective regions, work with Governors and principal State and local officials on matters involving Federal-State and local

problems; and make available to these officials, community groups, and others information regarding the activities of the Department.

During the year the Division of Field Management established committees in the regional offices for rural and urban area assistance.

The Division of Grant-in-Aid Audits reviewed expenditures totaling approximately \$4.75 million under the Department's 33 grant programs.

Under the direction of the Division of Surplus Property Utilization, personal property donations reached \$400,660,692 as measured by acquisition cost, and real property transfers reached \$23,355,370. Five years ago these figures were \$204,497,417 and \$13,567,628, respectively. Approximately 78 percent of the personal property was distributed to educational institutions, 10 percent to health institutions, and 12 percent to civil defense organizations. Donations of equipment useful in science teaching programs and machine tools useful in vocational education continued to play an increasingly important part in the overall program.

The Division of State Merit Systems reviews State personnel plans and operations, certifies compliance with Federal standards, and provides technical assistance for improvement of administration. During the fiscal year the majority of State personnel plans were reviewed, and examination materials were prepared and supplied to 41 States for 490 classes of positions. Technical advice plus the examination material assisted the States in their recruiting and selection programs involving 900,000 job applicants.

Special Staff on Aging

The Special Staff on Aging, established in 1956, coordinates the development of Department policies and programs in the field of aging. This unit has representatives in each of the nine regional offices of the Department and works closely with the States and with national organizations in establishing programs on aging throughout the country.

During the year the Special Staff on Aging was concerned principally with preparations for the 1961 White House Conference on Aging; served as secretariat to the National Advisory Committee for the White House Conference on Aging; made grants totaling \$759,200 to States and Territories to assist them in preparing for the White House Conference, and prepared for publication reports and recommendations submitted by the States and Territories. Also during the year the Special Staff issued a number of new publications and expanded the Department's monthly bulletin, "Aging."

Assistant to the Secretary (for Public Affairs)

The Assistant to the Secretary for Public Affairs serves as the Secretary's principal staff adviser on major public relations policy; helps formulate Department policy relating to public information affairs; and as occasion arises serves as the Secretary's spokesman in discussions with heads of operating agencies, Members of Congress, and others on matters involving the Secretary's and the Department's public information policies.

Office of Public Information

The Director of Public Information is the chief information officer of the Department. He advises the Secretary on Department policies and operations involving public information, publications, reports, and other information matters, and directs the Office of Public Information, which coordinates all information policies, services, and activities of the Department.

During the year, the Office of Public Information participated in the preparation of more than 60 statements issued by the Secretary at 24 news conferences, prepared or reviewed and issued more than 500 press releases, and reviewed and approved for publication approximately 300 printed documents produced by the Department and its operating agencies. Also during the year, the Office participated extensively in preparing for and conducting the public information aspects of the White House Conference on Children and Youth and in similar preparations for the 1961 White House Conference on Aging; answered hundreds of written and oral inquiries about Department activities and materials; prepared or assisted in the preparation of 50 or more addresses by Department officials; and prepared about 25 articles for encyclopedias and other publications. The Office also inaugurated a study to determine the extent to which existing review policies meet the current needs of the Department and its operating agencies in the field of public information.

Table I.—*Grants to States: Total grants under all Department of Health, Education, and Welfare programs, fiscal year 1960*

(On checks-issued basis)

States, Territories, and possessions	Total	Social Security Administration	Public Health Service ¹	Office of Education	Office of Vocational Rehabilitation	White House Conference on Aging	American Printing House for the Blind ²
Total.....	\$2, 730, 641, 306	\$2, 106, 328, 929	\$217, 515, 554	\$357, 020, 720	\$48, 606, 903	\$759, 200	\$410, 000
Alabama.....	80, 435, 586	63, 329, 492	6, 438, 838	8, 608, 552	2, 036, 745	15, 000	6, 959
Alaska.....	10, 029, 944	2, 263, 427	147, 546	7, 492, 974	110, 997	15, 000	-----
Arizona.....	26, 380, 743	16, 340, 457	1, 827, 698	7, 765, 577	428, 577	15, 000	3, 434
Arkansas.....	43, 272, 823	34, 141, 571	4, 467, 808	3, 531, 233	1, 111, 893	15, 000	5, 318
California.....	282, 010, 464	225, 581, 317	10, 812, 725	42, 789, 413	2, 778, 184	15, 000	33, 825
Colorado.....	47, 447, 460	36, 896, 039	2, 152, 706	7, 823, 727	555, 794	15, 000	4, 194
Connecticut.....	21, 433, 998	16, 299, 036	2, 026, 545	2, 692, 535	391, 157	15, 000	9, 725
Delaware.....	4, 392, 609	2, 502, 713	637, 750	1, 057, 488	181, 212	12, 200	1, 246
District of Columbia.....	10, 685, 771	9, 132, 640	956, 478	347, 915	232, 887	15, 000	851
Florida.....	80, 253, 332	62, 705, 676	6, 534, 488	9, 262, 718	1, 723, 567	15, 000	11, 883
Georgia.....	85, 869, 533	68, 153, 335	7, 113, 633	8, 258, 474	2, 318, 545	15, 000	10, 546
Hawaii.....	10, 355, 045	4, 218, 072	2, 010, 927	3, 884, 371	224, 851	15, 000	1, 824
Idaho.....	12, 524, 026	7, 232, 904	2, 202, 876	2, 896, 786	175, 639	15, 000	821
Illinois.....	109, 932, 768	91, 552, 225	9, 045, 299	7, 243, 650	2, 055, 837	15, 000	20, 757
Indiana.....	37, 279, 673	25, 880, 790	5, 568, 056	5, 318, 647	505, 008	-----	7, 172
Iowa.....	37, 998, 452	30, 439, 559	3, 520, 957	3, 033, 531	984, 968	15, 000	4, 437
Kansas.....	36, 991, 262	25, 793, 666	3, 318, 554	7, 223, 855	595, 537	15, 000	4, 650
Kentucky.....	57, 735, 472	48, 243, 310	5, 174, 215	3, 760, 073	537, 686	15, 000	5, 288
Louisiana.....	118, 134, 250	106, 120, 910	6, 544, 010	4, 222, 103	1, 225, 024	15, 000	7, 203
Maine.....	19, 304, 006	14, 667, 494	1, 870, 622	2, 465, 039	284, 848	15, 000	1, 003
Maryland.....	33, 012, 630	18, 886, 595	2, 679, 368	10, 835, 351	587, 867	15, 000	8, 449
Massachusetts.....	75, 464, 095	62, 682, 190	4, 593, 776	7, 322, 255	831, 394	15, 000	19, 480
Michigan.....	79, 119, 054	61, 300, 489	7, 984, 797	8, 384, 575	1, 415, 442	15, 000	18, 751
Minnesota.....	47, 556, 910	38, 258, 776	4, 646, 362	3, 547, 570	1, 081, 635	15, 000	7, 567
Mississippi.....	50, 383, 829	39, 648, 235	4, 490, 785	5, 347, 098	878, 152	15, 000	4, 559
Missouri.....	104, 146, 041	90, 545, 309	6, 680, 405	6, 016, 035	882, 606	15, 000	6, 686
Montana.....	12, 365, 905	6, 931, 859	1, 563, 611	3, 644, 597	219, 197	5, 000	1, 641
Nebraska.....	20, 315, 768	14, 500, 815	2, 261, 512	3, 188, 832	346, 995	15, 000	2, 614
Nevada.....	5, 209, 352	2, 742, 311	633, 348	1, 755, 544	62, 663	15, 000	486
New Hampshire.....	7, 902, 131	4, 703, 412	1, 399, 932	1, 676, 519	108, 992	12, 000	1, 276
New Jersey.....	37, 867, 831	26, 388, 160	3, 462, 067	6, 788, 097	1, 199, 616	15, 000	14, 891
New Mexico.....	27, 312, 517	16, 587, 936	948, 894	9, 515, 050	242, 885	15, 000	3, 252
New York.....	172, 021, 517	145, 977, 859	10, 054, 368	12, 717, 545	3, 213, 541	15, 000	43, 671
North Carolina.....	72, 622, 368	53, 143, 250	9, 464, 723	7, 852, 948	2, 133, 440	15, 000	13, 007
North Dakota.....	10, 976, 131	7, 264, 619	1, 409, 867	2, 021, 073	264, 630	15, 000	942
Ohio.....	104, 464, 228	85, 083, 904	8, 930, 002	9, 237, 922	1, 175, 245	15, 000	22, 155
Oklahoma.....	91, 941, 263	75, 748, 634	3, 002, 982	11, 955, 298	1, 216, 553	15, 000	2, 796
Oregon.....	23, 392, 863	18, 122, 832	2, 054, 792	2, 531, 096	663, 369	15, 000	5, 774
Pennsylvania.....	115, 585, 901	88, 300, 385	11, 632, 104	12, 379, 236	3, 229, 667	15, 000	29, 509
Rhode Island.....	14, 234, 067	9, 781, 006	1, 616, 798	2, 512, 691	307, 417	15, 000	1, 155
South Carolina.....	31, 157, 832	22, 338, 305	3, 054, 807	4, 937, 695	807, 740	15, 000	4, 285
South Dakota.....	13, 908, 160	8, 844, 371	1, 388, 275	3, 371, 863	287, 223	15, 000	1, 428
Tennessee.....	57, 682, 702	44, 015, 341	6, 822, 179	5, 317, 888	1, 504, 149	15, 000	8, 145
Texas.....	163, 035, 141	127, 162, 691	9, 507, 601	24, 697, 763	1, 638, 653	15, 000	13, 433
Utah.....	14, 669, 990	9, 718, 679	1, 585, 925	3, 040, 395	308, 502	15, 000	1, 489
Vermont.....	6, 784, 297	5, 001, 624	974, 565	607, 691	184, 961	15, 000	456
Virginia.....	46, 992, 566	18, 475, 788	6, 293, 569	20, 920, 009	1, 280, 329	15, 000	7, 871
Washington.....	55, 304, 921	40, 156, 326	3, 399, 824	10, 803, 087	923, 208	15, 000	7, 476
West Virginia.....	37, 034, 631	28, 826, 502	4, 192, 444	2, 790, 286	1, 205, 719	15, 000	4, 680
Wisconsin.....	40, 004, 855	30, 426, 601	4, 298, 815	4, 147, 257	1, 109, 615	15, 000	7, 567
Wyoming.....	6, 015, 552	3, 098, 479	1, 347, 231	1, 456, 812	97, 392	15, 000	638
Canal Zone.....	91	-----	-----	-----	-----	-----	91
Guam.....	1, 764, 955	189, 743	141, 025	1, 375, 853	58, 334	-----	-----
Puerto Rico.....	17, 327, 638	9, 598, 741	2, 581, 265	4, 471, 427	658, 561	15, 000	2, 644
Virgin Islands.....	636, 357	382, 999	46, 305	174, 698	22, 355	10, 000	-----

¹ Excludes \$242,255 paid to water pollution interstate agencies.² Includes permanent annual appropriation of \$10,000.

Social Security Administration

Social Security in 1960

Social security is today an accepted part of our culture and an essential bulwark of our economy. So affirmed the Secretary of Health, Education, and Welfare on the occasion of 1960 observances marking a quarter century since the August 14, 1935 signing of the Social Security Act. Fittingly, this year's report takes stock of the achievements of the past 12 months against a background of social security's 25 years of progress toward the place it now occupies in American life.

Elaborating on the twenty-fifth anniversary theme, the Commissioner of Social Security pointed out that the Social Security Act recognized the national interest in and the national scope of the problem of income security. In the midst of immediate need of devastating proportions, it established programs to prevent future dependency. The social insurance programs started in 1935 have since proven their value in periods of economic prosperity as well as temporary economic downturn.

The principle of shared responsibility for public assistance for needy persons and for health and welfare services manifested in the Federal grants to the States under the Social Security Act has also been firmly established.

In the years since 1935, programs established by the Social Security Act have been expanded and new programs added. Old-age benefits have become old-age, survivors, and disability insurance, and its coverage has been extended to almost the entire working population. Benefits have been increased not only to adjust to the changed value of the dollar but also to reflect in part the rising level of living for the population as a whole.

In our total social security system, primary reliance and emphasis have been placed on the contributory earnings-related programs—

old-age, survivors, and disability insurance and unemployment insurance—as the basic source of protection, for almost all Americans, against commonly shared risks to income. Under both of these programs, Americans earn their security as they earn their living, and benefits paid are varied—within limits—with the individual's customary level of living and his economic contribution to society as measured by his earnings. Because benefits under old-age, survivors, and disability insurance and unemployment insurance are payable when due no matter what nonwork income the individual may have, the social insurance programs have served to encourage other means of protection, through private employee-benefit plans and individual action.

No preventive measures, however, can anticipate all problems of need. An essential part of our social security system therefore is a flexible program of public assistance. Assistance can seek to rehabilitate and to avert perpetuation of poverty and dependency through successive generations.

The Federal Government for many years now has shared with the States in the cost of aid to the permanently and totally disabled as well as old-age assistance, aid to dependent children, and aid to the blind. The Federal share in the assistance programs has been increased over the years and provision has been made for proportionately more help to those States where need is greatest and income and fiscal ability least. Payment for medical care through public assistance has been made easier by the provision for Federal matching of direct payments to the suppliers of such service.

From the beginning, the Social Security Act has provided encouragement and support for health and welfare services. The programs for maternal and child health services and crippled children's services have expanded in scope. Both in these and in the child welfare services program, Federal financial support and Federal leadership have served to stimulate State and local action. Explicit recognition of the importance of services to promote self-help and increase the independence of persons receiving public assistance was written into the Federal act in 1956.

The Social Security Amendments of 1960, in the process of enactment at the end of the fiscal year and signed into law by President Eisenhower during the 25th anniversary year, will further improve the social security status of the American people.

Among the several improvements are provisions for increased Federal participation in the financing of State payments to suppliers of medical care for the needy aged and for inauguration of Federal grants to States for programs for the aged who do not receive old-age assistance but who are unable to pay medical bills.

For the aged who are able to provide for their maintenance but who do not have sufficient income or other resources to provide necessary medical care, the new law can operate as follows:

- States starting such programs have wide latitude in determining under what conditions aged persons can qualify for benefits. Each State develops its own test.

- States decide what hospital, medical, and surgical benefits are available to persons who qualify. The benefits are as liberal as the States wish to make them. The only Federal requirement as to scope of services is that the program must include both institutional and noninstitutional services.

- To help finance the program, the Federal Government makes available, beginning October, 1960, whatever funds are necessary to pay from 50 to 80 percent of the cost of the benefits, with the exact percentage determined on the basis of the per capita income of each State.

The Social Security Amendments of 1960 also increase to \$25 million each the ceilings on the amounts authorized to be appropriated annually for maternal and child health services, crippled children's services, and child welfare services. Additionally, research or demonstration projects grants to institutions of higher learning and other agencies and organizations are authorized in the field of child welfare.

In the old-age, survivors, and disability insurance program, the law makes these changes:

- Most importantly, the age 50 limitation for disability benefits is eliminated. Disabled workers and their dependents no longer have to wait for the otherwise eligible disabled worker to become 50 years of age to receive benefits.

- The retirement test is liberalized effective January 1961. Before this date a worker under age 72 earning more than \$1,200 would lose 1-month's benefit for every \$80 or fraction of \$80 by which his earnings went over \$1,200. Now the law provides that \$1 in benefits will be withheld for every \$2 of earnings between \$1,200 and \$1,500, and \$1 in benefits will be withheld for each \$1 in earnings above \$1,500. Thus a beneficiary can work in a job paying more than \$1,200 knowing that he will always have more in benefits and earnings combined than he would have if he limited his earnings to that figure. The provision that full benefits are payable for any month in which earnings do not exceed \$100 remains in effect.

- Monthly benefit amounts for children of deceased workers are increased to an amount equal to three-fourths of the worker's benefit amount, subject to the maximum family benefit.

- Certain work requirements determining eligibility under the program are liberalized.

- Benefit payments can go to survivors—most of them aged widows—of workers who had acquired 6 quarters of coverage and who died before 1940.

Among the anticipated results upon the effective dates of these changes, were these: 125,000 additional disabled workers and a like number of their dependents—a total of 250,000 persons—would qualify for disability benefits; increased benefits would go to about 400,000 children; 425,000 additional people—workers, dependents, and survivors—would become eligible for benefits.

These potential beneficiaries would now be added to the 14.3 million persons already receiving old-age, survivors, and disability insurance benefits at the end of the fiscal year, or 1.1 million more beneficiaries of this income maintenance program than a year before. Benefit payments during the fiscal year were being made at an annual rate of \$10.8 billion. Of those receiving benefits, 11.5 million were age 62 or over, 2.4 million were young survivors and dependents, and 371,000 were disabled workers age 50–64.

In the public assistance programs, almost 2.4 million persons were receiving old-age assistance, more than 3 million children and their adult caretakers were receiving aid to dependent children, 363,000 persons were receiving aid to the permanently and totally disabled, and 108,000 were in receipt of aid to the blind. In addition, some 971,000 persons were receiving general assistance financed from State and local funds.

June payments under the four federally aided public assistance programs were made at an annual rate of \$3,358 million, \$131 million above the June 1959 rate. Data for fiscal year 1960 show that the Federal share of these payments totaled 58.6 percent, the State share was 33.7 percent, and the local share 7.7 percent.

In all, almost 7 in 8 of the Nation's 15.7 million persons 65 and over at the end of the year had income from social insurance and related programs, public assistance, or both. This is in contrast to the situation at the end of 1934 when little more than 10 percent of all aged persons had income from such sources and about half, it is estimated, were mainly or wholly dependent on relatives or friends for their support.

At the end of fiscal year 1960, total payments under social security and related programs were made at an annual rate of \$26 billion, \$2.1 billion above the July 1959 rate. Rising old-age, survivors, and disability insurance benefits accounted for over half of the increase. Social security payments represented 6.4 percent of total personal

income in June 1960, compared with 6.2 percent in that month a year earlier and 6.6 percent in June of recession year 1958.

Federal credit unions, by promoting systematic savings and the use of funds thus accumulated for consumer loans at reasonable rates of interest, continued their part in promoting the Social Security Act objective of increasing family security. Continued growth of these credit unions brought their aggregate assets to almost \$2.4 billion at the end of 1959 and membership to 5½ million.

The Social Security Administration had 26,071 employees on duty at the end of fiscal year 1960. The great majority of these employees were in district offices and other offices of the Bureau of Old-Age and Survivors Insurance.

The White House Conference on Children and Youth, held in Washington from March 27 to April 2, brought together individuals and groups sharing a deep concern over the opportunities for children and youth to realize their full potential for a creative life in freedom and dignity. About 7,600 persons attended the meetings, including 1,400 youngsters and 500 visitors from foreign countries. National organizations, State and local groups, and Federal agencies were represented.

The two advisory councils created by the 1958 amendments to the Social Security Act submitted their recommendations and findings to the Secretary of Health, Education, and Welfare and to Congress at the end of 1959. The Advisory Council on Public Assistance reviewed the status of the public assistance program in relation to old-age, survivors, and disability insurance, the fiscal capacities of the States and the Federal Government, and other factors affecting the Federal and State shares in the program. The Advisory Council on Child Welfare Services reviewed the child welfare provisions of the Social Security Act, the current child welfare programs, and made recommendations for future changes in these provisions.

At fiscal year's end, active preparations for the 1961 White House Conference on Aging were under way at community, State, and national levels. The theme of the conference is "Aging with a future—every citizen's concern." While the principal concern of the Social Security Administration at the conference will be with matters affecting income security, its overall objectives encompass social as well as economic needs.

The March 1960 report of hearings of the subcommittee of the Ways and Means Committee of the House of Representatives to study the administration of the social security laws stated that the disability insurance program, on the whole, has been fairly administered with great capacity by excellent public officials.

Hearings and Appeals

Old-age, survivors, and disability insurance claimants are guaranteed the right of appeal and review. Largely as a result of the addition of disability benefits to the program in 1956, requests for hearings increased 512 percent in 3 years, from 3,800 in 1955 to 23,250 in 1958. The hearing workload on July 1, 1959, was 12,445 cases, of which 9,475 were related to disability issues. During the fiscal year 13,355 additional requests for hearings were received, 9,540 of them on disability issues. By the end of the year the pending load had been reduced to 5,960.

Requests for Appeals Council review of hearing examiners' decisions increased from 1,780 in 1957 to 5,000 in 1958. During fiscal year 1960, 7,300 cases were received for Appeals Council action, of which 5,650 were on disability issues. The pending load of 2,510 cases on July 1, 1959, was reduced to 1,685 by July 1, 1960.

After reviewing the program operations, the Subcommittee on the Administration of the Social Security Laws of the House Ways and Means Committee reported that "by and large, the subcommittee is satisfied that the Social Security Administration has done an admirable job in handling the 'appeals crisis' occasioned by the disability provisions. The subcommittee believes that the great majority of hearing examiners are performing an exceedingly difficult task with tact and competency. Our random survey of disability applicants who have had hearings shows that the great preponderance believed they had been treated courteously and afforded a fair hearing. This is true even though a great many were not satisfied with the result in their case."

International Activities

The Social Security Administration, through participation in international activities relating to social security, again added to mutual knowledge and insights on social welfare matters among nations of the world. Increased international cooperation was evident in Social Security Administration participation in expert groups concerned with program development, recruiting specialists for the United Nations, and providing training services for foreign nationals coming to the United States through both governmental and nongovernmental programs.

Prominent among the wide range of international organization functions in which top Social Security Administration officials and specialists participated were meetings and other activities sponsored by the International Social Security Association, United Nations agencies, the International Labor Organization, and the Organization of American States. Such participation included attendance of the

Commissioner of Social Security at the October 30–November 9 Rome meeting of the Bureau of the International Social Security Association, the Commissioner's appointment to the International Labor Organization's Committee of Social Security Experts, and the Chief Actuary's chairing of the Second International Conference of Social Security Actuaries and Statisticians, in Rome, October 22–October 28.

As in past years, the Social Security Administration cooperated with the International Cooperation Administration in recruiting experts in the fields of social welfare and maternal and child health. Fourteen experts were assigned to ICA overseas missions for some period during the year. The experts served in nine countries.

There was increased cooperation in recruiting for United Nations social welfare positions. Cooperation was also given to the Department of State in recruiting social workers for overseas teaching positions.

The Social Security Administration cooperated with the Department of State in developing U.S. materials for the next United Nations Biennial Report on Family and Child Welfare and other special international studies. Increased interest in social welfare internationally was reflected in a number of United States Information Agency requests for assistance in overseas exhibits.

Social Security Administration programs became a part of the curriculum of the State Department's Foreign Service Institute for the first time, with an International Service staff member presenting materials and leading discussions.

During the fiscal year the Social Security Administration's International Service planned training programs or conducted training sessions for 1,040 visitors from 75 countries. Requests for the training came through the International Cooperation Administration, the United Nations, the World Health Organization, and increasingly through Department of State exchange programs, and various foundations and agencies. Of the nations represented by the trainees, 18 were Asian countries, 14 were African, 20 were European, and 18 were Latin American. Ethiopia, French West Africa, Guinea, Malta, and Nicaragua sent representatives for the first time.

Old-age, survivors, and disability insurance benefits at the end of the fiscal year were being paid at the rate of \$5.9 million a month to more than 90,000 beneficiaries in 101 countries. Teams of experts from the Bureau of Old-Age and Survivors Insurance visited points in the Pacific area and Hong Kong during the year in connection with administration of the benefits.

Other intercountry interests and activities included Children's Bureau consultation to numerous agencies in connection with intercountry adoptions and Bureau of Public Assistance cooperation with

the Department of State in developing plans for assistance and services for repatriated American nationals.

Old-Age, Survivors, and Disability Insurance

In commenting recently on the significant advances made in the old-age, survivors, and disability insurance program, the Director of the Bureau of Old-Age and Survivors Insurance noted that "Today, 25 years after the enactment of the original Social Security Act, the old-age, survivors, and disability insurance program is firmly established as the basic method in the United States of assuring income to individuals and families who suffer a loss of earnings when the worker retires, becomes disabled, or dies." At the close of the fiscal year, more than 14 million people were receiving old-age, survivors, and disability insurance benefits, and this number was increasing by about 90,000 a month. On January 1, 1960, 72 percent of the people aged 65 and over were eligible for old-age and survivors insurance benefits; 90 percent of the mothers and children in the Nation could count on monthly benefits if the family earner dies, and about 46 million workers were insured against loss of earnings because of disability.

A significant development soon after the close of the fiscal year was the enactment of the Social Security Amendments of 1960. This new legislation eliminated the age-50 restriction on the payment of disability benefits, changed the retirement test provision so as to improve incentives to work, and liberalized the insured status requirements. The amendments also included provisions to encourage disabled people who are doubtful as to whether their work attempts will be successful to return to work; to make some further extension of coverage; to increase benefit amounts for children of deceased workers in certain cases; to improve the benefit protection for dependents and survivors of insured workers in specified situations; to simplify the method of computing benefit amounts; and to make several changes of a technical nature removing anomalies in the law and facilitating administration of the program.

During the year, the Subcommittee on the Administration of the Social Security Laws of the Committee on Ways and Means of the House of Representatives surveyed Bureau administration of the disability insurance program. At the conclusion of the hearings, the chairman of the subcommittee stated that "... on the whole the program has been administered very fairly and with great capacity by excellent public officials." A preliminary report of the

hearings recommended that several areas of administration be taken under study.

Several of the recommendations made by the subcommittee resulted in legislative proposals that were adopted and enacted in the 1960 amendments. Other recommendations were administrative; some of these have already been put into operation.

The Bureau's Central Study Staff which had been organized in January 1959 to conduct a detailed study of the entire old-age, survivors, and disability insurance claims process from receipt of application to certification of payment recommended that the Bureau proceed with all possible speed toward the fullest use of integrated and automatic data processing systems. The recommendation was approved by the Director and the Commissioner, and a Bureau Central Planning Staff was established to spearhead the planning and coordination essential to the successful execution of the recommendation.

The initial application of electronic data processing to payment center operations was installed in the Baltimore Payment Center during fiscal 1960 and will be extended to the other payment centers in January 1961.

The new Social Security Building in Baltimore County was completed during the year. Relocation of the Bureau staff, except the Baltimore Payment Center and operating segments of the Division of Disability Operations, was completed in April 1960. A contract has been let for construction of an annex to house the Division of Disability Operations and the Baltimore Payment Center; occupancy of the annex is planned for the spring of 1962. The consolidation of Bureau operations will bring about greater efficiency and improved service to the public.

Total administrative expenses of the Bureau in fiscal year 1960 amounted to approximately 2.03 percent of tax contributions and 2.05 percent of benefit payments.

What the Program Is Doing

Beneficiaries and benefit amounts.—During the fiscal year ended June 30, 1960, benefits paid under the old-age, survivors, and disability insurance program totaled \$10,798 million. Monthly benefit payments during the 12 months were 15 percent greater than the amount for the preceding fiscal year and totaled \$10,632 million; this amount includes \$528 million paid to disabled workers aged 50–64 and their dependents. Lump-sum death payments rose 11 percent to \$166 million.

The number and amount of monthly benefits in current-payment status showed substantial gains. In June 1960 almost 14.3 million beneficiaries were receiving benefits at a monthly rate of \$889.9

million—increases from June 1959 of 1.1 million in number of beneficiaries and \$84.3 million in amount of monthly benefits. The increase in number was 8 percent, and the rise in the monthly amount almost 11 percent. The increase in the monthly rate resulted from (1) the growth in the total number of beneficiaries and (2) the rising proportion of benefits based on recent higher earnings with as many as 5 years of lowest earnings and periods of total disability omitted from the benefit calculation.

Men aged 65 or over and women aged 62 or over made up almost 11.5 million (80 percent) of the beneficiaries—7.8 million of them were retired workers and 3.7 million were the wives and dependent husbands of retired or disabled workers and the widows, dependent widowers, and dependent parents of workers who had died. Of the remaining 2.8 million (20 percent), 1.9 million were children, about 534,000 were mothers, and 371,000 were disabled workers aged 50–64.

About 2.2 million monthly benefits were awarded in fiscal year 1960. New highs were reached for child's benefits (380,000) and mother's benefits (94,000). Contributing to the record number of child's benefit awards were the 62,000 made to children under age 18 of disabled-worker beneficiaries and the 33,000 to disabled dependent children aged 18 or over of disabled, deceased, or retired workers. Monthly benefits were awarded to 176,000 disabled workers aged 50–64.

Lump-sum death payments during fiscal year 1960 numbered 819,000, about 62,000 more than the previous high established in fiscal year 1959. About 788,000 deceased workers were represented in these awards. The average lump-sum amount per worker was \$210.40.

In June 1960, the average old-age insurance benefit paid to a retired worker who had no dependents also receiving benefits was \$70 a month. When the worker and his wife both received benefits, the average family benefit was \$123. Families consisting of a widowed mother and two children received on the average \$173. Among beneficiaries on the rolls at the end of June 1960, whose benefits are based on earnings after 1950, the average for a retired worker with no dependents receiving benefits was about \$78, for an aged couple about \$133, and for a widowed mother and two children about \$199.

Disability provisions.—During the fiscal year, about 190,000 workers—those under age 50 as well as those aged 50 or over—were found to be disabled; their social security records were frozen to protect their benefit rights. Those aged 50–64 qualified for monthly disability benefits calculated as though the worker had already reached retirement age at the time his disability began. Applications from about 105,000 workers were denied because of failure to meet the test of disability.

The number of disabled workers aged 50–64 receiving disability insurance benefits rose 35 percent in the fiscal year and totaled 371,000

in June. About 151,000 benefits were being paid in June to dependents of disabled-worker beneficiaries. Moreover, on June 30, 1960, there were an estimated 101,000 disabled workers under age 50 with an established disability freeze.

By the end of 1959, the latest date for which this information is available, about 68,500 persons were receiving old-age benefits increased by an average \$9.41 a month because their social security records were frozen for periods while they were disabled before reaching retirement age. The higher benefits were attributable both to the exclusion of a period of disability, and to the dropping of as many as 5 years of lowest earnings in computing the worker's average monthly wage in cases where the worker had retired without qualifying for a dropout and eligibility for the dropout therefore stemmed from the disability freeze. About 22,900 wives and young children of retired workers and about 26,900 widows, children, and dependent parents of workers who had their social security records frozen before death were also receiving larger monthly benefits because of the freeze. For the same reason, lump-sum death payments in 1959 based on the earnings records of 13,800 deceased workers were increased by an average of \$23.33 per worker.

Child's monthly benefits are payable to disabled persons aged 18 or over—dependent sons and daughters of deceased, disabled, or retired insured workers—whose disability began before age 18. During the fiscal year 28,000 persons met the disability requirements for child's benefits and 4,000 failed to meet the test of disability. By the end of June 1960 such child's monthly benefits were being paid to 95,000 persons at a monthly rate of \$4.1 million. About 13,600 women—who would not otherwise receive benefits—were receiving wife's or mother's benefits as the mothers of disabled persons receiving child's benefits.

The protection provided.—Of the population under age 65, an estimated 68 million were insured at the beginning of the calendar year 1960. Some 34 million of these people were permanently insured—that is, whether or not they continued to work in covered jobs, they will be eligible for benefits when they reach retirement age, and their families are protected if they die. (Included in this total were some three-fourths of a million women aged 62–64 who were already eligible for old-age benefits but on a reduced basis.) The remaining 34 million were insured but must continue in covered work for an additional period to be insured permanently. Nine out of ten of the mothers and young children in the Nation were assured that they would receive monthly benefits in case of the death of the family breadwinner. An estimated 46 million of the insured persons under age 65 also met the insured status requirements for protection against the risk of long-term and severe disability.

Of the 15.7 million people aged 65 or over in the United States at the beginning of 1960, 72 percent were eligible for benefits under the program. Sixty-four percent were actually receiving benefits, and 8 percent were not receiving benefits because they or their husbands were receiving substantial income from work. Taking into account the liberalization in the requirement for fully insured status provided by the 1960 amendments, the percentage of aged persons who will be eligible for benefits at the beginning of 1961 is estimated to be 77. This percentage is expected to rise to 82 by the beginning of 1966.

The coverage of the program.—An estimated 75 million persons worked under old-age, survivors, and disability insurance during the calendar year 1959. In addition, about 1 million persons employed in the railroad industry had, in effect, joint coverage under the railroad retirement and old-age, survivors, and disability insurance programs. Altogether, including State and local government and nonprofit employees for whom coverage is available on a group-election basis and members of the Armed Forces, nine-tenths of all persons in paid employment in the United States were covered or eligible for coverage under the program.

Of workers not covered and not eligible for coverage, about one-third were covered by Federal, State, or local retirement systems. The remaining two-thirds—7 percent of the Nation's paid employment—consisted generally of persons who are not regular workers and are for the most part self-employed persons and domestic and farm workers who did not meet certain requirements of the law as to the amount of their earnings or the length of time worked.

Income and disbursements.—Expenditures from the Federal Old-Age and Survivors Insurance Trust Fund during the fiscal year totaled \$11,055 million, of which \$10,270 million was for benefit payments, \$583 million for transfers to the railroad retirement account and \$202 million, including Treasury Department costs, for administrative expenses. Total receipts were \$10,343 million including \$9,843 million in net contributions and \$500 million in interest on investments. Disbursements exceeded receipts by \$713 million, the amount of the decrease in the trust fund during the year. At the end of June 1960 this fund totaled \$20.8 billion.

Total assets of the old-age and survivors insurance trust fund, except for \$1,080 million held in cash, were invested in United States Government securities as required by law; \$3.3 billion were invested in public issues (identical to Treasury securities owned by private investors), and \$16.4 billion were invested in securities of varying maturities issued for purchase by the trust fund. The average interest rate, figured on the coupon rate and face amount of all investments of this fund at the end of the fiscal year, was 2.63 percent.

The Federal Disability Insurance Trust Fund was created by the Social Security Amendments of 1956. Contributions to this fund first became payable in January 1957. Benefit disbursements began in August 1957. Expenditures from the Federal Disability Insurance Trust Fund during fiscal year 1960 totaled \$560 million, of which \$528 million was for benefit payments and the remainder—some \$32 million—for administrative expenses. Total receipts were \$1,061 million, including \$987 million in net contributions, \$26 million in transfers from the railroad retirement account, and \$48 million in net interest. Receipts exceeded disbursements by \$501 million, the amount of increase in the fund during the year. At the end of June 1960, the fund totaled \$2,167 million.

Assets of the disability insurance trust fund consisted of \$2,101 million in U.S. Government securities and a cash balance of \$66 million. The invested assets consisted of \$83 million in public issues and \$2,017 million in securities of varying maturities issued for purchase by the trust fund. The average interest rate, figured on the coupon rate and face amount of all investments of this fund at the end of the fiscal year, was 2.64 percent.

Administering the Program

The Bureau's planning theme for fiscal year 1960 was based on the premise of a relatively normal workload situation and called for continuation of efforts to achieve the best possible level of internal administration and service to the public. By the beginning of the fiscal year, new workloads stemming from the 1958 amendments had been well assimilated and the amount of work on hand at various work stations was generally current. Workload receipts during the year were slightly lower than expected and the workload-to-staff relationship was more favorable than in recent years, when staffing was undesirably tight. As a result, the Bureau was able to intensively study its operations and to take steps to achieve improvement.

Bureau staff at the end of the fiscal year totaled 25,079, not including 77 employees for whose services the Bureau is reimbursed. Manpower used during the year totaled 25,878 man-years, including 538 man-years of overtime. Overtime, however, as a percent of over-all staff time totaled only 2.0 percent, continuing the decreasing pattern of the past few years. In 1957, for example, overtime usage was equivalent to 9.4 percent of the total staff time.

In the course of the year, the Bureau received more than 2,451,000 claims for old-age and survivors insurance benefits and approximately 438,000 claims for disability insurance benefits and the disability freeze. More than 3,345,000 new social security accounts for individuals were established and over 2,915,000 duplicate account number

cards were issued during the year. In addition, approximately 263,000,000 earnings items were received for posting to individual earnings records. The Bureau also processed 2,388,290 requests for changes in personal data pertinent to the records of individual accounts and issued approximately 1,370,000 statements of earnings. During the same period, district offices received more than 10,320,000 inquiries concerning the old-age, survivors, and disability insurance program.

The subcommittee appointed by the Chairman of the Committee on Ways and Means to study the administration and operations of the social security laws started hearings in November 1959 on Bureau administration of disability insurance. As mentioned earlier, several of the subcommittee's recommendations were adopted and enacted in the 1960 amendments.

Much Bureau staff time had been devoted prior to the hearings to the preparation of a large volume of technical and program material required by the subcommittee in its study. This material furnished the basis for a "Disability Insurance Fact Book" released by the subcommittee in September 1959. The fact book, containing background information about the disability program, was designed to serve as a ready reference guide for the subcommittee members and their staff.

The interest expressed by the subcommittee concerning the availability to the public of rulings and procedures governing administration of the old-age, survivors, and disability insurance program gave added impetus to the Bureau's three-fold program for publication of these materials. This continuing program includes the first edition of the "Social Security Rulings," a revised edition of the "Social Security Handbook," and the updating and expansion of the Social Security Regulations.

The first quarterly issue of "Social Security Rulings," containing rulings in various areas, announcements of changes in the Social Security Act and Social Security Regulations, and items of public interest, was distributed in July. The new edition of the "Social Security Handbook" was also completed, and the revised issue distributed shortly after the end of the year. The Handbook, containing 242 pages of text, a detailed index of subject matter, and a chapter on related programs, is directed to people who want a more thorough understanding of the program than can be obtained from informational pamphlets. The work of updating and expanding the Regulations was started early in the fiscal year and was well under way by June. A draft of major additions to that part of the Regulations pertaining to rights and benefits based on disability was prepared by the end of the fiscal year and was being cleared for publication.

Pursuant to a recommendation of a committee of business leaders under the chairmanship of Mr. Reinhard A. Hohaus which studied

Bureau operations in fiscal year 1958, a Central Study Staff was organized in January 1959 to conduct a detailed study of the entire old-age, survivors, and disability insurance claims process from receipt of claim to certification of payment. The Study Staff submitted its formal report to the Director in September 1959, recommending "that the Bureau proceed with all possible speed toward the fullest exploitation of integrated and automatic data processing equipment and systems and that the Bureau make such changes in process, assignment of functions, and organization as may be necessary and feasible." The recommendation was approved, and a Central Planning Staff was established to spearhead the planning and coordination essential to the successful execution of the recommendation. The recommendation calls for an ultimate claims system in which all action stations will be linked by a data transmission system and for the use of electronic data processing equipment in the preparation of earnings statements, beneficiary recordings, claims payment, and adjustment processes. During the fiscal year, much of the planning and testing for the development of this system was completed.

The initial application of electronic data processing to payment center operations was installed in the Baltimore Payment Center beginning with certification of disability insurance benefit payments for September 1959. In May 1960, electronic data processing operations were extended to old-age and survivors insurance claims serviced by this payment center. Accounting records controlling the disability beneficiary roll and the roll of beneficiaries living abroad were converted from punch cards to magnetic tape, and programs and procedures were installed to perform on electronic data processing equipment the accounting and certification operations essential to the payment of these claims. These new techniques have resulted in simplified operations and the reduction of processing time, as well as permitting electronic updating of beneficiary rolls. Because punch cards used in check writing are now being produced as a by-product of electronic data processing operations, the Treasury Department was able to convert its payment records from addressograph plates to tabulating cards. In addition, the magnetic tape records in the Baltimore Payment Center have been expanded to include additional data such as name and address for check writing purposes and for use in automatic preparation of certificates of award and related forms and notices. Electronic data processing is scheduled for extension to other payment centers in fiscal year 1961.

Most of the basic planning for the transitional phase of electronic data processing operations has, likewise, been completed.

During the fiscal year, extensive research on the feasibility and general outline of a national data transmission system was conducted with communications companies, and a pilot installation was designed.

The pilot system, involving 26 district offices in one region, 3 payment centers, one regional office, and headquarters offices in Baltimore, will be operated from July through December 1960. Data and experience obtained from the pilot test will serve as guides in the development of equipment needs, circuitry and procedures, in establishing the final nationwide system.

One of the highlights of the year was the completion of the new Social Security Building on the outskirts of Baltimore. Relocation of the Bureau staff, except the Baltimore Payment Center, and operating segments of the Division of Disability Operations, from 11 scattered locations in downtown Baltimore occurred in January through April 1960 with no interruption of operations. During the next fiscal year, the organizational and functional changes resulting from the move will be surveyed to identify any additional changes which appear to be warranted and would result in an improved operation. On Saturday, June 18, a Family Day Open House was conducted and about 6,000 visitors toured the building. A formal dedication ceremony was held on July 1, and a Community Open House on August 16 provided further opportunity for some 3,600 guests to visit the building. To date, there have been visitors from 22 States, Washington, D.C., Puerto Rico, and several foreign nations. Construction of an annex to house the Baltimore Payment Center and operating segments of the Division of Disability Operations will be started in the fall of 1960, with completion scheduled for the spring of 1962. The establishment of these units in 1954 and 1958 increased space needs beyond the capacity of the new building as originally planned in 1953 and necessitated this additional construction.

Significant improvements in the earnings record operation were achieved in fiscal year 1960 through the use of new and improved electronic data processing equipment and the extension of electronic data processing operations resulting from the introduction of this equipment. During the year, 3 Model III-IBM-705 electronic computers were placed in operation in the new Social Security Building, replacing 2 Model II computers of lesser speed and capacity. The installation of these machines was timed to coincide with occupation of the new building. The new computers presented opportunities for increased speed and efficiency in the mass processing of earnings record data; two of the most important of the improvements are described below.

In the first half of the fiscal year, a series of pilot tests was conducted to validate programs and procedures developed for the extension of electronic data processing in the operations concerning the processing of earnings record items. The use of electronic data processing was introduced into the processing function immediately after initial punching of earnings cards. Subsequent operations, formerly per-

formed on punch card equipment, required physical manipulation of individual cards for each item, and a series of electric accounting machine reproducing, sorting, tabulating, re-sorting, listing, and auditing processes. With the use of magnetic tape, the data are now processed through a series of operations on the IBM Model III-705 computer; the manipulation of data and the sorting and balancing operations are performed by the computer itself.

Another important improvement resulting from use of the Model III-705 is in file reference techniques. The Model III has made it possible to search the entire reference file for summary earnings data (to be used primarily in connection with applications for benefits and requests for earnings statements) within 2 days at less cost than the former search requiring 3 days. Plans are now being developed to perform the complete file search on a daily basis.

The Bureau has relieved employers using electronic data processing systems compatible with Bureau equipment of some of their reporting burden by permitting them to submit their quarterly wage reports on magnetic tape. Currently 17 employers who report approximately 1,480,000 earnings items quarterly are reporting by this means. The tapes are processed through the Model III-705 and all necessary processing operations are performed electronically. This system of reporting has resulted in reducing both the cost and the time required to process the earnings items without placing any additional burden on the employers.

During recent years, considerable progress has been made in obtaining quarterly earnings reports earlier and in a form that permits more rapid posting to individual accounts. A system was inaugurated during the past year whereby quarterly earnings reports from 16 employers having 50,000 or more employees are transmitted via the servicing district offices rather than through the Internal Revenue Service. These employers currently report approximately 1,800,000 items quarterly. Quarterly tax reports are thereby received earlier—the average time was improved by 14 days in the quarter ending December 1959—assuring a more level workload at the start of the quarter and thus making more efficient use of staff and equipment. During the coming year, plans have been made for extending this procedure to employers with 20,000 or more employees. It is estimated that the planned extension will result in the direct submittal of approximately 1,500,000 earnings items from 87 additional employers.

With a large part of the earnings record operations now highly automated, the Bureau has been giving careful consideration to the manual operations still remaining. Among these, top priority is being given to studies seeking an acceptable microfilm substitute for the SS-5 file, which occupies approximately 36,000 square feet of floor space and is used to house all original applications for social security account

numbers and subsequent changes in these records. The Bureau is collaborating with private industry in the research and development of the special photo-electronic process required for this project. A general description of the file and its usage has been provided to engineers conducting the research and development of the special processes. In the meantime, detailed cost estimates for the operation and maintenance of the present file are being developed for comparison and evaluation of any proposals that may be developed.

During the year, the Bureau continued efforts to have greater emphasis placed on complete and accurate wage and self-employment income reporting, and auditing activities. The Bureau prepared a detailed proposal under which the Internal Revenue Service would undertake a number of canvassing, auditing, and returns-processing activities designed to serve old-age and survivors insurance needs. The proposal was submitted to Internal Revenue Service for consideration as a budget item in the development of their own plan for improvement in the collection of social security tax contributions. In addition, the Bureau has prepared specifications under which the Bureau would do the canvassing, auditing, and processing activities that seem to be essential to complete coverage, proper reporting, and prompt and accurate processing of tax returns. All of these activities will be studied and developed in greater detail in the coming fiscal year as a joint effort of the Bureau and the Internal Revenue Service.

An on-the-spot study and evaluation of the program in Europe was conducted in the summer of 1959. A survey team of two Bureau representatives visited Italy, France, Spain, and Greece to explore ways and means of facilitating the claims process and expediting service to claimants and beneficiaries in Europe as well as to insure the validity of benefits being paid. After returning to the United States in September 1959, the survey team made interim reports to the Bureau executive staff and an informational report was prepared for all Bureau employees. The final report was submitted to the Office of the Director in May 1960 and is now under study.

Of the 14.3 million persons receiving old-age, survivors, and disability benefits at the end of fiscal year 1960, 93,600—about one-half of one percent—were living outside the United States. This figure includes persons traveling or living abroad temporarily.

During the year, an agreement was negotiated with the Veterans Administration whereby its staff and facilities in the Philippines will be utilized, on a reimbursable basis, for services in connection with old-age, survivors, and disability insurance affairs originating in that area. Following negotiation of the agreement, a Bureau team was sent to Manila to coordinate the transfer of functions, train the Veterans Administration staff in old-age, survivors, and disability

insurance program and procedures, and to survey and report on problems of program administration in the Far East. The Veterans Administration office in Manila was opened to the public for old-age, survivors, and disability insurance business in May 1960.

Legislative Developments During the Year

The most important measure affecting old-age, survivors, and disability insurance was the enactment, soon after the end of the fiscal year, of P.L. 86-778, the Social Security Amendments of 1960. This legislation was signed by the President on September 13.

PROVISIONS OF THE 1960 AMENDMENTS

Liberalizing the insured status requirements.—The work requirements are liberalized so that, to be eligible for benefits, a person needs one quarter of coverage for every 3 calendar quarters elapsing after 1950 (or after the year in which he attained age 21, if that is later) and before the year in which he reached retirement age or died, whichever first occurred. In any case, as before, a person needs not less than 6 nor more than 40 quarters of coverage. (Calendar quarters in a period of disability are not counted as elapsed quarters unless they are quarters of coverage.) Under prior law, the requirement was one quarter for every 2 elapsed quarters before the quarter in which those events occurred.

About 400,000 additional people—workers, dependents, and survivors—were made immediately eligible for monthly benefits as a result of this change. Of this total, about 250,000 were aged 65 and over. By January 1, 1966, an estimated 1,000,000 persons will be eligible for monthly benefits who would not qualify under prior law. Of this total, some 700,000 will be aged 65 and over.

Improving incentives to work under the retirement test.—The retirement test—the provision in the law under which old-age and survivors insurance benefits are paid only to those people (under age 72) who have retired or who do not have substantial earnings from work—is charged beginning with 1961 by eliminating the requirement for withholding a month's benefit for each \$80 of earnings above \$1,200 and providing instead for withholding \$1 in benefits for each \$2 of earnings between \$1,200 and \$1,500, and for each \$1 of earnings above \$1,500. There has been no change in the provision which specifies that regardless of the amount of annual earnings no benefits will be withheld for any month in which the beneficiary neither earns wages of more than \$100 nor renders substantial services in self-employment.

The new test reduces the deterrent to work that existed under the prior test, since a beneficiary can accept a job at any earnings level

above \$1,200 knowing that he will always have more in combined benefits and earnings than he would have if he limited his earnings to \$1,200. Under the new test about 400,000 people will start to get benefits or will get more benefits for 1961 than they would if the law had not been changed.

A test of this general sort was discussed in the Department's report on the retirement test that was submitted to the Committee on Ways and Means of the House of Representatives in March 1960.

Increasing the benefit amounts for children in certain survivor cases.—The benefit of each child of a deceased worker is now three-fourths of the primary insurance amount of the deceased worker (subject to the maximum amount payable to the family). Heretofore, it had been one-half of the primary insurance amount, plus one-fourth of the primary insurance amount divided by the number of children. About 400,000 children will receive higher benefits as a result of this change, beginning with the check for December 1960.

Improving the benefit protection available to dependents and survivors of insured workers in specified situations.—Benefits are now provided for the survivors of workers who had acquired 6 quarters of coverage and who had died before 1940. (Under prior law, monthly survivor benefits were payable only in the case of deaths after 1939.) About 25,000 people—most of them aged widows—were made eligible for benefits by this change.

Benefits are also now payable to a person as the wife, husband, widow, or widower of a worker if this person had gone through a marriage ceremony in good faith in the belief that it was valid, if the marriage would have been valid had there been no impediment, and if the couple had been living together at the time of the worker's death or at the time an application for benefits was filed. Benefits can also be paid to the child or stepchild of a couple who had gone through a marriage ceremony even though an impediment prevented the ceremony from resulting in a valid marriage. For the purposes of these provisions, an impediment is defined as an impediment resulting from a previous marriage—its dissolution or lack of dissolution—or resulting from a defect in the procedure followed in connection with the marriage.

A child can now get benefits based on his father's earnings even though, at the time of his father's death, he was living with and being supported by his stepfather. The change extends to the child living with his stepfather the protection already afforded on the father's earnings for other children, including children living with and being supported by other relatives.

A wife, husband, or stepchild can become entitled to benefits based on the earnings of a retired or disabled worker if the relationship to the worker has existed for at least one year. This time requirement in

cases where the worker is alive is the same as that which now applies when the worker is deceased.

Simplifying the method of computing the average monthly wage, on which benefit amounts are based.—Under the previous law, a person's average monthly wage was computed over a span of time that varied with the age of the person at the time he filed an application for benefits or for a benefit recomputation (and could also vary depending on whether he worked before attaining age 22). As a result, a person's benefit amount could vary with the date on which he applied for benefits. Thus, a person who did not understand the rather complicated provisions of the law, or did not know what his earnings would be in future years, occasionally could find that he had not applied for benefits at the most advantageous time. The average monthly wage now is figured from a constant number of years for each particular person, regardless of when he actually applies for benefits. The number is generally equal to five less than the number of years after 1950 and before the year in which the worker attained retirement age (65 for men and 62 for women).

Elimination of age-50 requirement for eligibility for disability insurance benefits.—Benefits for disabled workers under age 50 will be payable for the first time for November 1960. The elimination of the requirement that a person must have attained age 50 in order to be eligible for disability insurance benefits closes an important gap in the protection offered under the old-age, survivors, and disability insurance program. The need for benefits is as great, or greater, for the severely disabled under age 50 as it is for those age 50 or over. Disabled workers under age 50 are more likely than the older disabled workers to have a dependent family and less likely to have savings. Perhaps 125,000 workers—and at least that many dependents of these workers—will be able to qualify for benefits immediately.

Trial period of work for disability beneficiaries.—Under the new law, beneficiaries who go to work despite severe handicaps can continue to be paid their benefits for 12 months—whether they go to work under a vocational rehabilitation plan or on their own. Before the enactment of the amendments only disabled persons who returned to work under a State-approved vocational rehabilitation plan could continue to draw benefits during such a trial work period.

On the basis of the first 9 months—not necessarily consecutive—in which they work, a decision will be made as to whether the work done by the beneficiary shows that he has regained his ability to work. If he is found able to engage in substantial, gainful activity, and therefore is no longer disabled within the meaning of the law, he will still receive benefits for 3 additional months. The amendments also provide that beneficiaries who recover from their impairments before they have worked 9 months, as well as beneficiaries who recover before

they have tested their ability to work, will receive benefits for 3 months after recovery. This provision for the payment of benefits after recovery recognizes that a person who recovers from a severe and long-term impairment, especially if he has spent a long period in a hospital or a sanitarium, may require benefits for a brief interval during which he is becoming self-supporting.

For disability beneficiaries on the benefit rolls at time of enactment of the legislation, the first month a trial-work period can begin is October 1960. For future cases the period will begin with the month in which a person becomes entitled to benefits on account of disability.

Modification of waiting period in cases of recurring disability.—The amendments provide that workers who become disabled a second (or subsequent) time will not be required to undergo another six-months' waiting period if the prior period of disability was terminated no more than 5 years before the onset of the current disability. The provision is designed to remove a possible deterrent to the disabled individual's return to work in cases where he is in doubt as to whether his attempt to work will prove successful.

Family employment.—The family employment exclusion is changed to provide coverage for certain services performed after 1960 by parents in the employ of their adult children. The services covered are those performed by the parent in the course of the employer's trade or business. Domestic services in or about the child's home and other work not in the course of the child's trade or business continue to be excluded.

Guam and American Samoa.—The amendments extend coverage to about 8,000 employees and self-employed persons in Guam and about 2,000 in American Samoa. In general, coverage is effective beginning January 1, 1961. Employees and officers of the Government of Guam will be covered on a compulsory basis but their coverage will not become effective until the Governor of Guam certifies that the Guamanian Government wants its officers and employees to be covered. A comparable provision is included for employees of the Government of American Samoa. Filipino workers who come to Guam under contracts to work temporarily are excluded from coverage.

Employees of nonprofit organizations.—The amendments eliminate the requirement that two-thirds of the employees of a nonprofit organization must concur for the organization to elect coverage for its employees. Another provision permits certain earnings reported by nonprofit organizations (that failed to comply with the requirements for extending coverage to these employees) to be credited to the worker's account.

Ministers.—Most ministers and Christian Science practitioners who have had earnings for at least 2 years were, prior to the passage of the amendments, barred from electing coverage. The amendments

permit them an additional opportunity, generally until April 15, 1962, to make the election.

Employees of foreign governments and international organizations.—The amendments extend coverage on a compulsory basis to service performed within the United States by United States citizens in the employ of foreign governments or their wholly-owned instrumentalities and of international organizations. These employees, numbering about 5,000, will be covered as though they are self-employed persons. Coverage is effective beginning with taxable years ending on or after December 31, 1960.

Employees of State and local governments.—The 1960 amendments contain a number of provisions that are designed to facilitate the coverage of public employees. The most important of these is a provision permitting groups of public employees who are brought under the program after 1959 to have their coverage begin as early as the first day of the fifth year preceding the year in which their coverage is arranged (but not before 1956). Another provision places a time limitation on the period within which the Secretary may assess unpaid social security contributions and on the period during which contributions that a State has erroneously paid may be refunded. This provision is comparable to the statute of limitations of the Internal Revenue Code applying to nongovernmental employment.

Employees of Farm Credit Banks.—Other legislation enacted by the 86th Congress (P.L. 86-168) provides coverage for persons who first enter after December 31, 1959, the employ of Federal land banks, Federal intermediate credit banks, and banks for cooperatives.

Implementing certain recommendations made by the Advisory Council on Social Security Financing.—In general, the procedure relating to the investment of the old-age, survivors, and disability insurance trust funds is strengthened by making the interest earnings of the trust funds more nearly equivalent to the rate of return being received by people who buy Government obligations in the open market.

Miscellaneous.—Other changes, mostly of a technical nature, were made to simplify the law and make it fairer and to facilitate administration of the program.

Special Study Requested by the Congress

The Committee on Ways and Means of the House of Representatives, in connection with its consideration of proposed changes in the Social Security Act, requested that the appropriate Federal agencies accelerate their efforts in finding a workable and sound solution to the problem of providing old-age, survivors, and disability insurance protection for Federal civilian employees, and to report it to the Congress at the earliest opportunity.

Surveys of the Status of Beneficiaries Under the Old-Age, Survivors, and Disability Insurance Programs

The Bureau of Old-Age and Survivors Insurance is conducting surveys of the resources of beneficiaries, from several different aspects. One type of survey, conducted periodically between the years 1941 and 1957, has provided a picture of the economic situation of beneficiaries in a given year. Another type of survey, to be conducted for the first time in the spring of 1961, is designed to show what happens to retired people over the course of years.

The Bureau in its earlier surveys has obtained information on the sources and amount of the income of beneficiaries, the extent of their home ownership, the amount of their other assets and liabilities, and their expenditures on such items as housing, medical care, and health insurance. In the forthcoming retirement history study the Bureau will attempt to obtain similar information but over a prolonged period of years. To do this, a sample of persons will be interviewed shortly after they come on the benefit rolls, and again a year later and every 2 or 3 years thereafter for a period of 12 years, to measure the long-term changes in the situation of beneficiaries and their adjustments to such changes.

In the field of disability, a survey has been planned in order to remedy the lack of information on the economic situation of persons drawing disability benefits. The survey has been designed to obtain current data as well as information needed to plan a long-term study of a sample of disabled persons.

A study of persons recently granted public assistance is being planned by the Bureau of Public Assistance and the Bureau of Old-Age and Survivors Insurance, to determine why some public assistance recipients do not receive old-age, survivors, and disability insurance benefits and why some old-age, survivors, and disability insurance beneficiaries require public assistance. After a representative sample of persons granted assistance is obtained from the State public assistance agencies, information regarding the old-age, survivors, and disability insurance status of these recipients will be obtained from Bureau of Old-Age and Survivors Insurance records and through home interviews.

Another study in preparation by the Bureau of Old-Age and Survivors Insurance is a survey of State and local government retirement systems, which has been designed to compare the benefits and contributions of these systems before old-age, survivors, and disability insurance coverage with the combined benefits and contributions under both old-age, survivors, and disability insurance and State and local systems.

Program Simplification

Considerable progress was made in the Social Security Amendments of 1960 under the Bureau's program for achieving a simpler old-age, survivors, and disability insurance program—one that is easier to understand, accept, and administer. Major simplifications were achieved in the computation of benefits, the payment of the lump-sum death benefit, and the amount of the benefit payable to surviving children.

Other simplifications made in the 1960 amendments involved (1) the conditions under which a benefit amount can be recomputed, (2) the dependency requirements of a child on his natural or adopting father, (3) the determination of fully insured status, (4) the granting of quarters of coverage for cases of maximum earnings in years before 1951, (5) the duration-of-relationship requirements, and (6) the determination as to whether an individual entitled to disability insurance benefits is able to engage in substantial gainful activity.

Other simplification proposals were also developed but because of time limitations and other factors they were not submitted to the Congress during the 1960 legislative session. As a result, there is now accumulated a backlog of these proposals, and they will be available for presentation to the Congress when revisions of the Social Security Act are again considered.

Financing the Program

The old-age, survivors, and disability insurance system, as modified by P.L. 86-778, has an estimated benefit cost that is very closely in balance with contribution income. In enacting the 1960 amendments Congress again made clear its intent that the program be self-supporting from contributions of covered workers and employers. Careful review was given to long-range actuarial cost estimates prepared for use of the congressional committees in their legislative considerations. The program as amended continues to be financed on an actuarially sound basis.

The difficulties involved in making exact predictions of the actuarial status of a program that reaches into the distant future are widely recognized. If different assumptions as to, say, interest, mortality, retirement, disability, or earnings had been used, different results would have been obtained. Accordingly, no one set of estimates should be looked upon as final. It is the Department's policy continually to re-examine the long-range cost estimates of the program in the light of the latest information available.

Old-age and survivors insurance benefits.—The level-premium cost of old-age and survivors insurance benefits after 1959, on an interme-

diate basis, assuming interest at 3.02 percent and earnings at about the levels that prevailed during 1959, is estimated at 8.42 percent of payroll (after adjustments to allow for administrative expenses and interest earnings on the existing trust fund). The level contribution rate, equivalent to the graduated rates in the law, is estimated at 8.18 percent of payroll, leaving a small actuarial insufficiency of 0.24 percent of payroll. In view of the very long range over which these projections are made, and the many variable factors included, the insufficiency is so small that the system may be considered in actuarial balance.

Disability insurance benefits.—The Social Security Amendments of 1956 established a system for financing disability benefits which is entirely separate from the financing of old-age and survivors insurance benefits. The level-premium cost of the disability benefits (adjusted to allow for administrative expenses and interest) on an intermediate basis is 0.56 percent of payroll. Contribution income has been specifically allocated to finance these benefits; this income is equivalent to 0.50 percent of payroll, leaving a small actuarial insufficiency of 0.06 percent of payroll. Considering the possible variability of cost estimates for disability benefits over the long-range future, this small deficiency is not significant.

Public Assistance

The 25th anniversary of the federally aided public assistance programs in August 1960, and preparation of special reports and other technical materials for Congress during the year served to focus attention on program evaluation. The concentrated study of many facets of the program revealed the important role of public assistance in meeting individual want during the past quarter century, identified areas still needing consideration, and produced guidelines for further developments that can have significant impact on the lives of many in the Nation in the years ahead.

Congressional consideration of various proposals for helping to meet the medical care needs of the American people also resulted in the passage of legislation in August 1960 making more adequate provision for the medical care of old-age assistance recipients, as well as of the aged who can meet their maintenance needs but do not have sufficient resources for the costs of their medical care.

A Quarter Century in Retrospect

The flexibility inherent in the public assistance programs has permitted their adaptation to changing needs in the rapid economic and social change of the past quarter century. For example, between February 1936, when public assistance payments were first made with

Federal financial participation, and January 1940, when the first monthly benefits were paid under old-age and survivors insurance, the public assistance programs carried major responsibility for providing basic economic security to the needy aged and blind and for needy children in their own homes deprived of parental support or care because of the death, disability, or absence of a parent.

However, as amendments in the ensuing years liberalized insurance benefits and extended coverage (until 9 out of 10 persons in the working force and their dependents are now covered), the public assistance programs shifted into the secondary and supplementary role originally intended. By June 1960, fewer than 6 million persons were receiving federally aided public assistance in contrast to over 14 million receiving insurance benefits.

Similarly, adaptations have been made in the coverage and the services provided under the public assistance programs as the major factor contributing to dependency has changed from unemployment in the early 1930's to disability, chronic illness, advanced age, and family disruption in the 1950's.

LEGISLATIVE CHANGES

Legislative changes *prior to 1960* which broadened the scope and coverage of the public assistance programs include:

1. establishment of a new federally aided category of aid to the permanently and totally disabled in 1950;

2. extension of the federally aided assistance programs to Puerto Rico and the Virgin Islands in 1950, and to Guam in 1958;

3. provision for Federal financial participation in State public assistance expenditures for:

- a. aged, blind, or disabled recipients who are patients in public medical institutions, in 1950;

- b. costs of medical care or other remedial care paid directly to doctors, hospitals, and other suppliers of such services, in 1950;

- c. needy adult caretakers of children in the ADC program, in 1950; and

- d. children 16 and 17 years of age without regard to school attendance, and children living with first cousins, nieces, and nephews (in addition to previously specified relatives) in the ADC program, in 1956; and

4. emphasis on the provision of social services to help recipients achieve increased self-care, self-support, and stronger family life, in 1956, by:

- a. clarifying the objectives of public assistance as including both financial assistance and other services, and

- b. recognizing that the cost of providing such services is a proper cost of administering public assistance.

Other amendments from 1939 through 1958 made various changes that increased Federal grants to the States by:

1. *raising the maximum* on the monthly amount of assistance for which Federal financial participation would be available (e.g., from \$30 a month for an individual old-age assistance payment in 1935 to a \$65 monthly average payment per recipient in 1958);

2. *increasing the proportion* of Federal participation in that part of the assistance payment subject to Federal sharing (e.g., from $\frac{1}{2}$ of the monthly money payment to old-age assistance recipients in 1935 up to $\frac{4}{5}$ of the first \$30 a month average payment plus half the balance for money payments to recipients up to a \$60 maximum, and half of separate payments to vendors for medical and remedial care up to \$6 per recipient in 1956); and

3. *changing the basis of Federal financial participation* in the second part of the payment (1958) so that:

- a. the Federal share was related to a single maximum average expenditure per recipient for both money payments to recipients and vendor payments for medical care;

- b. the maximum amount of State expenditures for public assistance, including medical care, in which the Federal Government will participate was established for each program at an amount equal to \$65 a month times the number of aged, blind, and disabled recipients in the State and to \$30 times the number of recipients in ADC; and

- c. the fiscal ability of each State was taken into account in determining the Federal share of that part of a State's average expenditure per recipient above \$30 in the adult categories and \$17 in aid to dependent children.

Amendments to the Social Security Act in August 1960 made it possible for the Federal Government to help States provide more medical care for older people after October 1, 1960. (See details on pages 47-48.)

INCREASING ACCEPTANCE OF PUBLIC WELFARE MEASURES

Changes in the public assistance provisions of the Social Security Act reflect changing attitudes toward the alleviation of destitution. As the Nation became industrialized, we moved from the earlier general belief that almost everyone could achieve security for himself and his family through his own effort and that most people who needed community help were shiftless or lazy, to a growing awareness that individuals were increasingly subject to the impersonal forces of a money economy. The typical American family changed from a large, highly integrated, self-sufficient farm family to a smaller city family dependent on wages and subject to strains that weaken family co-

hesion. Many individuals and families became less able to provide for their own economic security in the face of hazards encountered by most people from time to time.

The depression years in the 1930's also helped to change the thinking of many, for there was much evidence that destitution can result not only from personal inadequacies but from forces over which the individual has little or no control. The growing number of dependent aged persons and young children also created new economic and social problems. Increasing acceptance of the concept that it is economically unsound as well as morally wrong to let people go without needed help led to the planning which culminated in the passage of the Social Security Act.

Higher regard for the individual.—Many provisions of the public assistance titles of the Social Security Act also reflect increasing concern about the importance of respecting the dignity of the individual and recognizing his rights as well as his responsibilities. For example, the definition of assistance as a money payment, in contrast to the earlier usual relief in kind, leaves with the needy person responsibility, like that of others in the community, for deciding how best to use his income to meet his basic maintenance needs. Provision is made for a hearing before the State agency to protect individual rights when a needy person has been denied aid or is dissatisfied with the amount of his assistance payment, or when his application has not been acted upon with reasonable promptness. To safeguard his privacy, disclosure by the agency of personal information is prevented for purposes other than the administration of the program. To raise standards for the care and protection of needy people in institutions, a 1950 amendment requires the State to designate an authority responsible for establishing and maintaining standards for institutions in which recipients of federally aided assistance reside.

Provisions for costs of medical care improved.—Amendments to the act in 1950, 1956, and 1958 were designed to improve medical care provisions for the needy. In 1950, the definition of "assistance" was broadened to include vendor payments (payments for medical care and other remedial care made directly to the suppliers of such services). However, the amount subject to Federal financial participation had to come within the maximum individual assistance payments specified in the act. In 1956, in addition to Federal participation in individual money payments, provision was made for separate Federal sharing in a State's total expenditures for vendor payments under each program up to one-half of the sum of \$6 multiplied by the number of adult recipients and \$3 multiplied by the number of child recipients per month. In 1958, the basis for Federal sharing in State expenditures was changed to bring both money and vendor payments within a new single averaging formula. This made it possible for the Federal

Government to share with the States in larger medical expenses in individual cases. (For provisions of 1960 amendments relating to medical care, see pages 47-48.)

By June 1960, 44 out of 54 jurisdictions had some provision in their public assistance programs for costs of medical care through the vendor payment. This method of payment was used for hospitalization in 33 jurisdictions, for practitioners' services in 30, and for nursing home care in 15; and a combination of the vendor method of payment and the money payment (within the limits of the State's maximum on individual assistance payments) was used by 7 jurisdictions to meet an established rate for nursing home care. Some of the 44 jurisdictions using the vendor payment, and 6 out of the 10 remaining jurisdictions, also provided for some items of medical care in the money payment to the recipient.

Welfare services strengthened.—A 1956 amendment clarified the scope of Federal financial participation in the costs of providing staff services in addition to financial aid. This legislation stimulated or renewed activities by the States in helping needy persons to find and use their own strengths and other available resources to develop their potential for more satisfying and independent living. Although the extent and quality of services vary greatly across the country, heartening advances are being made. More people are being helped to greater self-sufficiency, with some savings in assistance costs; and the benefits of cooperative effort by public and voluntary agencies and other groups in the community are being demonstrated.

Services most generally provided have been in relation to the health needs of children and adults, and to the improvement of home conditions for children. For example, public assistance workers have increasingly provided or arranged for services that enable the needy aged or disabled person to remain in his own home and with his family and friends as long as possible. Some skilled workers have helped with more intangible but equally serious emotional problems. Projects in several States have arranged for specialized services and home-helps that enable some aged persons in nursing homes and mental hospitals to return to normal living patterns in the community. Other projects, using a team including doctors, rehabilitation and employment counselors, and social workers to consider latent capacities and resources of handicapped individuals, have helped some disabled persons to become self-supporting or to embark on plans for at least partial rehabilitation.

AREAS IDENTIFIED AS NEEDING FURTHER CONSIDERATION

The 25th anniversary of the federally aided public assistance programs marked a significant milestone of progress in the Nation's concern for its needy. But it also identified groups for whom public

assistance is not generally available, as well as program areas needing further strengthening.

State and/or locally financed general assistance or institutional care is provided for many temporarily or permanently unemployable needy persons not included within the scope of the federally aided public assistance programs. However, no provision is made for general assistance in 17 States for employable persons and their families who are needy and have no other resources available to them even when limited education, lack of job skills, or discrimination prevents their earning enough to live decently and healthfully; or when they are unemployed, even though they are ineligible for unemployment insurance, receive benefits too small to maintain them, or have exhausted their benefits. In a few States, only some of these people in the direst circumstances can receive some assistance at some time. Nonresidents in most States are aided only in emergencies, and effort is made to return them to their State of residence as quickly as possible; only 13 jurisdictions have no durational residence requirement. Limited, if any, financial assistance is available under private auspices to most of these needy persons.

In many States, public assistance programs have come a long way during the past 25 years in providing more help and in extending such help to additional groups of needy people. Federal, State, and local governments have increased their expenditures substantially. But with limited funds, rising costs, and the shrinking value of the dollar, fewer than half the States are fully meeting "need,"¹ judged by standards they themselves have set. The other States either impose maximums on the monthly amount of assistance any individual or family may receive or meet only a specified proportion of need.

In some States the standards themselves are inadequate. They either have not been revised in content or priced recently enough to maintain their currency in providing generally accepted and validated essentials of living. Other inadequacies result from State policies for evaluating the resources of recipients—for example, counting as income from relatives expected contributions that fail to materialize.

Only limited funds are available for general assistance in many States. Therefore, stringent standards are applied in determining the degree of destitution that must exist before such assistance is granted. The amount of the assistance payment is necessarily at a level below those in the federally aided programs. The estimated average amount of general assistance *per case* in June 1960 was \$67.48 (nearly half are family cases with about 4.6 persons per family), compared with \$58.06 *per recipient* of federally aided old-age assistance (excluding vendor payments for medical care under each program).

¹ "Need" is defined here as the gap in income between the total cost of living essentials set by the State and the individual's resources to meet that cost.

Inadequate provision to meet medical care costs.—Although some progress has been made in providing for more medical care services for more needy persons, wide variations exist both among the States and among the categories of needy persons in the types and quantities of medical care provided through public assistance or other State and local resources.

Medical care provisions in most public assistance programs include only a few medical services. For example, in June 1960, 8 of the 33 jurisdictions that provided for hospitalization through public assistance vendor payments restricted their payment to care necessitated by acute illness or injury. (Seven of the 20 jurisdictions without provision for hospitalization under public assistance have other State systems of hospital care or other known sources available to needy persons.)

The amount provided for medical care within the money payment is sometimes limited by the State's maximum on assistance payments. Average monthly expenditures per assistance recipient for vendor payments for medical care in June 1960 were \$11.67 for the disabled, \$10.52 for the aged, \$6.36 for the blind, and \$1.71 for a recipient of aid to dependent children. Comparable averages for recipients of general assistance are not available.

Because of the high cost of medical care, it is evident that the unmet need is still considerable, since public assistance recipients include persons most in need of medical care and yet least able to pay for it. The increased Federal help to the States authorized by the 1960 amendments should make it possible for States to raise both the quality and quantity of medical care for many in need of such care.

Disparity between provisions for the needy aged and those for dependent children.—The national average monthly payment, including vendor payments for medical care, amounts to \$67.90 for an aged recipient compared with the \$29.08 payment per recipient of aid to dependent children (June 1960). This disparity may be related, to some extent, to the greater need of the aged for medical care and the availability of more care for them in many States. But undoubtedly it also reflects greater public acceptance of old age as a reason for dependency than of divorce, separation, desertion, or unmarried parenthood—the causes for the dependency of about 60 percent of the children receiving aid to dependent children today.

Inadequate provision of other social services by qualified staff.—The 1956 "services amendment" stimulated increased planning for the provision of other welfare services to help needy persons increase their capacity for self-care or self-support and to maintain and strengthen family life. However, because of staff limitations and heavy workloads, many States' services plans, in general, attempt to define real-

istically their responsibility by limiting the problems for which services would be provided, limiting services to those required in the determination of eligibility for money payments, or giving only those services that can be provided during regular contacts for eligibility determination.

The States are increasingly aware of the importance of making staff time available for supportive services in addition to financial aid needed by many of the aged, the disabled, and one-parent families. But large caseloads, high staff turnover, and lack of staff skills also limit the availability and quality of services that can be provided by most agencies, since this kind of help often requires additional time and usually needs the knowledge and skill that come from professional social work training. The fact that only about 2 percent of public assistance caseworkers have had full social work training and only 15 percent partial training reflects not only the nationwide shortage of social workers but also the handicap under which public assistance agencies labor because of their relatively low salaries (in comparison with those in other governmental and voluntary agencies), heavy workloads, and the complex of professional and clerical content in the job.

Although the "training amendment" in 1956 authorized additional Federal funds to help States to increase the number of persons qualified for work in the public assistance programs, no funds have been appropriated.

Considerations for the Future

Recommendations for dealing with some of the problem areas identified through its study of the programs are included in the report of the Advisory Council on Public Assistance. This Council was established under a 1958 amendment to the Social Security Act to review the status of the public assistance program in relation to old-age, survivors, and disability insurance, the fiscal capacities of the States and the Federal Government, and any other factors bearing on the amount and proportion of the Federal and State shares in the public assistance program.

Their report, *Public Assistance—A Report of the Advisory Council on Public Assistance*, submitted to Congress on December 31, 1959, including recommendations that reflect the consensus of a 12-member group with wide diversity of backgrounds and interests, points up significant areas for further consideration. For, while most of the recommendations deal with Federal-State methods of sharing the financial burden of assisting persons in need, they do so with a focus on finding ways of meeting unmet needs, improving assistance stand-

ards, and strengthening family life. They recommend, for example, that—

Coverage be extended to all needy persons regardless of the cause of their need by:

a. using Federal grants-in-aid to encourage States to include additional needy persons, such as the unemployed, the underemployed, and the less seriously disabled (and to reevaluate exclusions now in the law specifically directed to needy persons in certain institutions and foster homes)—giving the States freedom of choice in determining whether to administer public assistance as a single program or as separate categorical programs, and suggesting several options: a single category for all financially needy persons, adding a new category of general assistance to existing categories, retaining one or more existing categories and consolidating remaining needy groups in a single category, or expanding existing federally aided categories to include additional needy persons;

b. expanding the aid to dependent children program to include any financially needy children living with any relative in their own home; and

c. limiting the use of Federal grants-in-aid to State programs imposing no residence requirements for eligibility.

Standards of assistance be raised by:

a. creating greater public understanding as to what constitutes a level of living sufficient to maintain health and well-being, with Federal leadership in (1) the development of up-to-date budget guides for typical families, (2) requiring States to report on the relationship of their own budgets and actual payments in relation to these budgets, and (3) publishing the data from individual State reports;

b. extending the scope and improving the quality of medical care for which assistance payments are made without reducing money payments to recipients (through cooperative efforts of Federal and State governments and voluntary agencies, with greater Federal leadership and the help of a broadly constituted Medical Care Advisory Committee);

c. raising Federal matching maximums per recipient high enough so as not to hamper State efforts to provide assistance at levels adequate for health and well-being and to meet rising costs of basic living requirements and medical care;

d. raising Federal matching maximums per recipient for ADC to an equitable relationship with the other programs, with any differences reasonably related to differences among the groups in the cost and content of their living requirements; and

e. encouraging the States to apply the same assistance standards to all categories of needy persons and to ensure that similar treatment is accorded to persons in similar circumstances.

Individual and family life be strengthened by:

a. appropriating funds authorized by Congress in 1956 for research and demonstration projects relating to strengthening family life and the reduction and prevention of dependency;

b. establishing a national institute (comparable to the National Institutes of Health) to conduct studies and demonstration projects leading to strengthening of family life;

c. urging the Federal Government to encourage States to utilize appropriate available services of voluntary agencies, as well as involving them in studying problems of family disintegration and breakdown and in developing coordinated programs for strengthening of family life; and

d. assisting the States to increase the number of staff qualified to provide services needed by public welfare recipients to help prevent dependency and promote social rehabilitation by: (1) providing 100 percent Federal funds both to States for training public welfare personnel and to accredited graduate schools of social work for training in strengthening family life and caring for the needs of the aging; and (2) encouraging States to establish and maintain salaries of public welfare personnel at levels required to obtain and retain competent personnel.

Other recommendations concerning fiscal and administrative operations include support of the "open-end" method of appropriating Federal funds and the statement that the proportionate Federal share of the Nation's total public assistance expenditures, including general assistance, should not be less than is provided under the Social Security Amendments of 1958. Measures are also recommended to extend coverage and increase social insurance benefits with a particular view toward reducing the need for public assistance. The Federal Government was also urged to encourage the States to establish appropriate advisory committees and in other ways to stimulate public interest and increase public knowledge of the role of public welfare programs, since "the more a community becomes a part of a public welfare program, the better it will be."

Similarly, the Bureau's report, *Illegitimacy and Its Impact on the Aid to Dependent Children Program*, gives many significant guidelines that can contribute to a better understanding of illegitimacy and to plans for dealing with it more constructively.

This report, prepared by the Bureau of Public Assistance at the request of a congressional committee and issued in April 1960, outlines factors contributing to the increase in illegitimacy. It identi-

fies the problem of illegitimacy as one that long preceded the establishment of public assistance programs; and is a social problem at all income levels, with many underlying causes. It also points out that the concentration within aid to dependent children of families whose need is associated with socially disapproved behavior has increasingly made this program a target of criticism as more information has become available about the causes of dependency. Earlier concern related more to families where the father deserted; recently, attention has been focused largely on families where the father has not married the mother.

One in 25 of our Nation's children is illegitimate; one in each 200 illegitimate children is in need. The socially unacceptable behavior of the parents of needy illegitimate children has been widely publicized and used by some as the basis of proposed legislation and administrative regulations directed against the aid to dependent children program in general. Most of these State legislative proposals have never become operative. But others, which indirectly control the assistance payment through eligibility conditions and low payments, have resulted in depriving already disadvantaged children of needed support and care. The focus of concern—the 1 in 6 children receiving aid to dependent children whose need is directly related to unmarried parenthood—while of grave significance, has tended to obscure the value of the program in sustaining hundreds of thousands of needy children and in helping thousands of families to remain together—a sound investment in the physical and emotional well-being of our growing generation.

The report also cautions that the problem of the child or the community is not solved by denying assistance while leaving the child in endangering conditions. It suggests that any lasting solution must deal with the causative factors and must move forward on many fronts.

The report, *Characteristics of General Assistance in the United States*, prepared by the Bureau and printed by the Senate Special Committee on Unemployment Problems in November 1959, provides a compilation of information about the basic characteristics of general assistance on a nationwide basis which can be helpful in the consideration of measures to deal with the needs of individuals not included within the scope of the federally aided public assistance programs. Information for each State, as of January 1959, includes a general description, conditions of eligibility, standards of assistance and payment, and administration under general assistance; as well as information about other aid from public funds.

In 1960, published information on the Nation's public assistance programs was more comprehensive than ever before. In addition to the material already mentioned, *Characteristics of State Public Assistance Plans*, a periodic publication of the Bureau of Public Assistance cover-

ing the federally aided programs, was reissued in March 1960. A release, *Summary Information on Medical and Remedial Care Provided in Approved State Public Assistance Plans*, was prepared as of June 1960. The December 1959 issue of the *Trend Report—Graphic Presentation of Public Assistance and Related Data* (published annually for the past 5 years) also provides selected data on the development of the special types of public assistance under the Social Security Act since 1935.

Developments in 1960

NEW LEGISLATION

In the closing days of the 86th Congress, the widespread consideration given to various methods of helping to meet the medical care needs of the aged resulted in amendments to the Social Security Act which provide for a new program of medical assistance for the aged, effective October 1, 1960.

Under a revised Title I, "Old-Age Assistance and Medical Assistance for the Aged," Federal funds are available to the States to enable them to provide assistance for persons 65 years of age and over who are not recipients of old-age assistance but who, although able to meet normal expenses, have insufficient income and resources to meet the costs of necessary medical services. Under the new program, the basis of eligibility is intended to be more liberal than under old-age assistance, a durational residence requirement is prohibited, and the types of medical care provided must include non-institutional as well as institutional care. Federal participation in payments made by the State to suppliers of medical care is not restricted by any specific maximum on either individual or average payments. The Federal share ranges from 50 to 80 percent depending upon the relationship between the per capita income in the State and the national per capita income.

The amendments also provide for increased Federal financial participation, effective October 1, 1960, in payments made by the States to suppliers of medical care in behalf of recipients of old-age assistance. In addition to the usual share in assistance payments up to a monthly maximum of \$65 per aged recipient, the Federal Government will provide an additional amount based on expenditures for payments to suppliers of medical care up to a monthly maximum of \$12 per recipient. For States with average monthly payments of \$65 or more, the Federal share of the average amount of vendor medical payments up to \$12 that brings the average payment above \$65 will be the Federal medical percentage (ranging from 50 percent to 80 percent, depending on the State's per capita income), or 15

percent of the average vendor medical payment up to \$12, whichever is the larger. For States with average monthly payments under \$65, the additional Federal share will be 15 percent of the average vendor medical payment up to \$12.

The 1960 amendments also permit Federal financial participation for the first time in State vendor medical care payments (under both the new medical care program and the old-age assistance program) in behalf of patients in a medical institution as a result of a diagnosis of tuberculosis or psychosis for 42 days after such diagnosis.

To help Puerto Rico, the Virgin Islands, and Guam provide more medical care, the 1960 amendments increase the dollar limitation on the total amounts of Federal funds they may receive annually. However, the increase is available only for medical care payments made in behalf of recipients of old-age assistance to cover the costs of the Federal share above that otherwise applicable. Expenditures under the new program of medical assistance for the aged do not come under this dollar limitation.

To help States evaluate and improve their public assistance programs and their programs of medical assistance for the aged, the Department was directed to develop, or make revisions in, recommended guides or standards relating to the level, content, and quality of medical care and medical services, and to collect and publish information related thereto.

Amendments to the Social Security Act also provide that, effective July 1, 1962, a State agency in determining need for blind assistance, *must* disregard the first \$85 of earned income per month plus one-half of earned income in excess of \$85. Until then, beginning October 1, 1960, a State is *permitted* to disregard the first \$85 per month and one-half of the excess or to continue to apply the \$50 per month exemption as under the old law. Special legislation providing for the approval of the Missouri and Pennsylvania blind assistance plans, due to expire June 30, 1961, was extended to June 30, 1964.

Legislation was also passed by the 86th Congress authorizing the Department of Health, Education, and Welfare to provide reception service and hospitalization at Saint Elizabeths Hospital, or elsewhere, for repatriated mentally ill Americans. (See pages 55-56 for further information on this provision.)

TRENDS IN CASELOADS AND EXPENDITURES

With the initiation during the year of the four federally aided public assistance programs in Guam, and the establishment of an aid to the permanently and totally disabled program in Iowa, 54 jurisdictions now administer federally aided programs of old-age assistance, aid to dependent children, and aid to the blind; and 50 jurisdictions

administer federally aided programs for needy persons who are permanently and totally disabled. General assistance in some form for some persons is available in all 54 jurisdictions.²

About 6.8 million persons were receiving aid in June 1960 under the five public assistance programs (including general assistance). This total is only slightly higher (19,000) than a year earlier.

Two federally aided programs showed increases in caseloads in June 1960; aid to dependent children, with 3,025,000 persons in 794,000 families including 2,330,000 children—a 3.3 percent, 2.2 percent, and 3.7 percent increase respectively; and aid to the permanently and totally disabled, with 362,800 persons—a 7 percent increase. The other federally aided programs showed decreases; old-age assistance, with 2,358,600 persons—a drop of 2.5 percent; and aid to the blind, 108,000 persons—a drop of 1.3 percent. Similarly, the 971,000 persons (in 367,000 cases) receiving State and/or locally financed general assistance in June 1960 represented a 5.3 percent and a 3.7 percent drop, respectively, compared with June 1959.

Total assistance expenditures, *including* vendor payments for medical care for all five programs for the fiscal year 1960 were \$3,705 million—a 3.6 percent increase over expenditures in 1959, reflecting in part the effort of some States to offset the continuing rise in living costs.

In aid to dependent children, the national average payment was \$29.08 per recipient in June 1960, compared with \$28.38 a year earlier. State average payments ranged from a low of \$9.50 in Alabama (except for \$3.85 in Puerto Rico) to a high of \$46.53 in the State of Washington.

In old-age assistance, the average payment was \$67.90 per recipient in June 1960, compared with \$64.76 in June 1959. Average payments ranged from a low of \$29.75 in Mississippi (except for \$8.24 in Puerto Rico) to \$109.11 in Colorado.

In aid to the permanently and totally disabled, the average payment per recipient was \$65.74 in June 1960, compared with \$63.37 a year earlier. The average payment varied from a low of \$30.33 in Mississippi (except for \$8.75 in Puerto Rico) to \$128.62 in Connecticut.

In aid to the blind, the average payment per recipient was \$72.81 in June 1960, compared with \$69.04 a year earlier. Average payments ranged from a low of \$38.65 in Mississippi (except for \$8.27 in Puerto Rico) to \$125.73 in Massachusetts.

² General assistance, which is wholly State and/or locally financed, is administered by the State public assistance agency through its local offices in 19 jurisdictions; supervised by the State public assistance agency through local offices which are branches of county or municipal government, usually also servicing federally aided programs, in 9; administered by the local political jurisdiction in 9, with specifically limited responsibility exercised by the State public assistance agency; and administered by the local agency in 17, with no responsibility exercised by the State agency.

In State and/or locally financed general assistance, *excluding* vendor payments for medical care, the average payment *per case* was \$67.48 in June 1960, compared with \$65.78 in June 1959 (46 percent were family cases including an average of 4.6 persons per family). Average payments ranged from a low of \$12.67 per case in Alabama (except for \$12.65 in Puerto Rico) to \$102.78 per case in New Jersey.

The number of beneficiaries receiving old-age assistance to supplement their social insurance benefits continued to increase. In February 1960, about 675,600 old-age assistance recipients, or 28.5 percent (compared with 26.7 percent in 1959 and 19.2 percent in 1955) were receiving assistance to supplement insurance benefits because these benefits and other personal resources were insufficient to meet their basic and/or special needs, such as medical care. The percentage of recipients of other types of public assistance who also received old-age, survivors, and disability insurance benefits was considerably smaller; for example, 16 percent of those receiving aid to the blind, 7 percent of those receiving aid to the permanently and totally disabled, and 5.2 percent of all families receiving aid to dependent children.

Source of funds for public assistance payments.—Of \$3,705 million expended for the five public assistance programs in fiscal 1960, about 51.9 percent or a little over \$1,922 million came from Federal funds, 36.3 percent, or \$1,343 million, from the States, and 11.9 percent, or \$440 million, from the localities (of which \$425 million was spent for general assistance).

For the four special types of public assistance, the Federal share of total costs was 58.6 percent; the State share, 33.7 percent; and the local share, 7.7 percent.

PROGRAM AND ADMINISTRATIVE DEVELOPMENTS

The influence of study and evaluation was also reflected in various program developments. Efforts to learn more about the causes of dependency and characteristics of persons receiving public assistance, which sharpened the outline of areas of need and made more clearly visible significant factors contributing to dependency, have already resulted in advances in implementing recommendations growing out of the past year's study.

For example, a staff paper was developed establishing a position on each of the 20 recommendations made by the Advisory Council on Public Assistance, and work was initiated on several. These included exercising greater leadership in working with the States to improve standards of assistance, medical care, and the administration of the aid to dependent children program, especially in relation to provision of services, policies relating to problems of "unmarried parenthood," and community planning.

In addition, since many States are concerned about "suitability of home" provisions, and a few have considered or enacted legislation making "suitability of the home" a condition for receipt of assistance under the aid to dependent children program, consideration was given to policy questions involved, and to planning to meet the needs of children affected by such provisions.

Cooperative activity continued with the Children's Bureau toward the goal of utilizing the full potentials of both the aid to dependent children and the child welfare services programs in dealing constructively with the factors contributing to the dependency of children. Further interpretation was made of the policy statement on Public Assistance-Children's Bureau program relationships prepared for the use of the States in clarifying the functions and responsibilities of each program in providing services to children in their own homes, and help was given to States to achieve more effective day-by-day cooperation between public assistance and child welfare services at State and local levels.

The Bureau also participated in the development by the National Social Welfare Assembly of an interpretative document on the aid to dependent children program to encourage understanding and support and cooperative service from local voluntary agencies. The resulting pamphlet, *ADC: A Family Service—The Community Responsibility*, has had wide distribution and use.

Bureau staff participated in several areas for the White House Conference on Children and Youth held in the spring of 1960. Materials were provided for use in preparation for the conference, and conference materials were distributed to State welfare agencies for their use. Several members of the Bureau staff served as delegates or resource persons in workshops and helped in providing facilitating services. Follow-up activity included participation with the Interdepartmental Committee on Children and Youth in planning for an evaluation of the conference and in implementation of recommendations.

Efforts were also continued in strengthening services for the needy aged and the ill and disabled through joint activity with interested national groups, preparation of informational and interpretive materials, and consultation to the States. A specialist on aging was also added to the Bureau staff.

Bureau activity in preparations underway for the White House Conference on Aging, to be held in January 1961, included staff serving as Technical Director for the Conference Section on Family Life, Family Relationships, and Friends, and on the Technical Committee for the Conference Section on Social Services; preparation of background papers on income maintenance, social services, and family life

for use of the States in planning for the Conference; participation in planning the general and orientation sessions of the Conference, the outlines of content for small work groups, selection of speakers and discussion leaders, and identification of possible resource persons; and work with the Special Staff on Aging of the Department and the SSA Committee on Aging in reviewing and commenting on various aspects of overall Conference planning.

Cooperative work with other organizations in this area included planning a seminar on casework services for older persons with the National Social Welfare Assembly, American Public Welfare Association, and the Family Service Association of America; participation with the American Public Welfare Association in preparation of a statement on the social service needs of older people and the role of public welfare; and leading institutes and giving papers on various aspects of aging at meetings sponsored by various organizations. The Bureau has also continued active participation on the executive committee of both the National Conference on Homemaker Services and the National Committee on Homemaker Service to assist in the development of plans for a permanent organization which would promote and coordinate homemaker services at the national level.

Through preparation of informational and interpretative materials and consultation, help was also given to the States in the provision of services to the needy aging and to the ill and disabled. For example, a pamphlet was issued on *Services for Older People*, interpreting the roles of the public assistance programs and the Bureau of Public Assistance in relation to older persons. Interpretative and standards material in relation to the development of homemaker services to meet the needs of families, the ill, and older persons was also provided for the use of interested States.

Implementation of a plan of exploration with each State with reference to the service aspects of its programs, evaluation of its experience in providing services, determining next steps, and identifying ways in which the Bureau can be helpful, revealed great interest and activity and identified specific areas for further Bureau planning. Evidence of increasing interest in State public assistance agencies in developing homemaker services is especially heartening. So is the joint planning by the Bureau and the Office of Vocational Rehabilitation in connection with study of Arizona's services to the blind to strengthen the work of both agencies with the States in their use of vocational rehabilitation resources for helping handicapped public assistance recipients, and to help State welfare staffs develop appropriate social services aimed at rehabilitation.

Continuing effort was made to improve staff competence in State and local agencies by encouraging State agencies to provide for academic training under the 50-50 Federal matching provisions for the

costs of administration, by developing other methods of improving staff competence, and by making more effective utilization of professionally trained staff. The Bureau also provided two short-term training seminars for approximately 100 State public assistance field representatives; follow-up sessions were planned for October and November 1960. The first seminars were focused on ways of helping State and local staff further the program objectives of helping public assistance recipients achieve increased capacity for self-support, self-care, and strengthened family life. Emphasis for the second sessions was to be on methods used in carrying out the State field representative's job, and in deepening knowledge about policy development, community planning and supervision especially in relation to group training.

Orientation was also provided in Washington by central office staff for new State administrators. They were introduced to sources of information available to help them understand the mutual and related responsibilities of the State and Federal Governments in administering the public assistance and child welfare programs, and acquainted with the specialized services available to the States from the central office, and how these services support and supplement the work of the regional staff.

Consultation and technical assistance was given to States to improve their administrative management and to make more effective use of staff. Studies of organization and procedures were made to help States simplify the work of professional staff through reducing the volume of paper work, streamlining procedures, and transferring non-professional functions to clerical workers. An ad hoc committee on workload standards, with representation from public and voluntary agencies, participated in considering methods of establishing appropriate workload standards for public assistance agencies. A group of 31 welfare finance officers and tabulating equipment supervisors from 19 States with centralized fiscal operations also met in Washington to consider how State agency fiscal operations can be carried out most effectively and what planning should be undertaken prior to deciding on installing electronic data processing equipment. In addition, materials were developed to help States improve their supervision of local agencies, simplify the work of professional staff, and determine when they should convert machine operations to automatic data processing systems.

Continuing efforts were made to improve methods for conducting the administrative review of State and local operations. They included field testing of work materials and instructions in reviewing practice in relation to the application process, hearings, money payments, and guardianship; and the revision of instructions for broadening the statewide review of eligibility determination to include social services.

Miss Kathryn D. Goodwin was appointed to the position of Director of the Bureau of Public Assistance in August 1959. A change in Bureau organization structure provided for the establishment of two new positions. One is that of Assistant Director, responsible for (1) providing general direction of the administrative activities of the Bureau and of the civil defense emergency welfare activities assigned to the Bureau, and program planning for repatriation of American nationals and for refugees and immigrants; and (2) assisting the Director in the direction and coordination of Bureau activities. The other is that of Assistant Director for Program Operations, a position which raises the status of field program operations and provides a better basis for coordinating regional activities with top-level planning of the Bureau. A new Civil Defense Emergency Welfare Services Unit was also established within the Office of the Director. The Unit carries responsibility for developing and maintaining plans for a state of readiness to provide welfare services in a civil defense emergency, and for continuity and restoration of peacetime programs.

Civil defense emergency welfare services.—Following limited activity in 1958 in planning for emergency organization and operations during a war disaster, activities were resumed early in 1959 on preparations for civil defense emergency welfare activities which the Office of Civil and Defense Mobilization planned to assign to the Department.³ In the latter part of 1959, the Department of Health, Education, and Welfare was given primary responsibility for (1) developing and coordinating the overall emergency welfare program through joint planning with other appropriate Federal agencies and voluntary organizations; and (2) preparing basic national guidance materials for State and local use.⁴

Within the Department, primary responsibility for emergency welfare was assigned to the Bureau of Public Assistance, under the direction of the Commissioner of Social Security. This assignment was based on the concept of built-in emergency welfare service planning by using fully the regional structure and existing channels of Federal-State-local counterpart relationships in the welfare field. The scope of the assignment includes nationwide guidance to States in planning, mobilizing, and organizing for welfare service responsibilities in relation to survival aid and services; feeding; lodging; clothing; locating and reuniting families; care of groups needing specialized services, such as unaccompanied children, the aged, the handicapped; and post-attack transitional financial assistance, counseling, and wel-

³ Under an allotment to the Department by the Office of Civil and Defense Mobilization.

⁴ Under Emergency Welfare Annex 19 to the National Plan for Civil Defense and Defense Mobilization and a memorandum of understanding between OCDM and the Department of Health, Education, and Welfare.

fare services to families and individuals. It also includes aid to welfare institutions under national emergency or post-attack conditions; and all other feasible welfare aid and services to people in need during any degree of a national emergency pre- and post-attack.

Emphasis during 1960 was focused on organization, recruitment, orientation to the emergency welfare services responsibilities, and development of national guidance materials for use by the States. A Children's Bureau child welfare specialist prepared the material relating to the care of children. Draft materials were reviewed in mid-June by an ad hoc advisory committee representing State and local public welfare and civil defense departments, national and local voluntary agencies, a public housing agency, a metropolitan school system, other offices of DHEW, OCDM, the Department of the Army, Housing and Home Finance Agency, and the Post Office Department.

Repatriation of American citizens.—The Bureau has continued to assist the Department of State in arranging for the reception and care of repatriated American nationals who need special help upon arrival in this country. During the past year, assistance was requested by the Department of State in behalf of 63 cases involving 126 individuals from 27 different countries. Through the cooperation and help given by public and private welfare agencies, primarily in New York, it was possible to secure emergency reception services, transportation, hospitalization, and other services in behalf of these repatriates.

However, many repatriates no longer can claim State residence and are not eligible for public aid or hospitalization in States which have residence requirements for the receipt of such services. This, plus the fact that there are no Federal funds for this purpose, makes the development of satisfactory relocation plans a time-consuming and difficult process, and places an unusually heavy burden upon health and welfare facilities in the port of entry.

Late in the fiscal year, regional offices were provided with copies of the Department of the Army's draft plan for assistance to the Department in the reception and provision of services to American civilians repatriated from foreign countries during a period of international tension or emergency. The operation of DHEW plans in this regard, which envisage the cooperation of State and local public and private welfare agencies, requires the enactment of legislation to provide a statutory base and appropriation authority to enable the Federal Government to assume its proper share of the expenses of the services required by repatriates.

Legislation to facilitate the repatriation of all United States nationals, which was submitted to the Congress in 1959 culminating a long period of program development and interdepartmental negotiation, passed the Senate but did not secure House Committee action during the last session of Congress. The 86th Congress, however, did

take action to assist one group of repatriates by passing Public Law 86-571 on July 5, 1960, authorizing the Department to provide for reception and hospitalization at Saint Elizabeths Hospital, or elsewhere, of repatriated mentally ill Americans. This authority, when supported by an appropriation, will facilitate the repatriation of the mentally ill.

Services to refugees and immigrants.—Following active participation in the 1957 temporary program of the President's Committee on Hungarian Refugees, and in the 1958 sessions of the Departmental Committee on Refugees and Immigrants established to implement a task force report on the Department's role in future refugee activities, Bureau activity during the past year was directed primarily toward developing statements and position papers on proposed legislation and program planning for services to refugees and immigrants. It also prepared comments on a 1959 draft Joint Congressional Resolution to provide for the resettlement in the United States of 1,000 difficult-to-resettle refugees, and developed a plan of follow-up steps based on a study of sample cases referred by the Department of State.

International activities.—Cooperative work with the SSA Office of International Activities during the past year included central office planning for and consultation to foreign visitors, and interpretation of U.S. social welfare programs to individuals and international groups referred by various Government agencies. Bureau staff in regional offices also provided consultation and planned or arranged observation programs in cooperation with State and local public and voluntary welfare agencies for visitors from 20 countries.

Bureau staff prepared comments on various United Nations' documents, provided material required by the United Nations for their World Report on Social Development, and prepared pertinent sections of the United Nations Biennial Report on Family and Child Welfare (1960). A Bureau staff member served as one of the eight United States Government representatives to the 11th Pan American Child Congress held in Bogota, Colombia, in November 1959. She also participated, prior to the Congress, in the preparation of the United States' official report on social welfare programs for children and, subsequently, in outlining the major results of the Congress to be reported to the Department of State.

Children's Bureau

Some Facts and Figures About Parents and Children

Births continue to be more than 4 million a year but the crude birth rate and the rate per thousand women of child bearing age have dropped slightly since the peak of the 1950's.

The estimated number of children under 18 in the civilian population of the United States in 1959, including Alaska but not Hawaii, was 64 million, 36.5 percent of the total population.

Provisional statistics indicate that the infant mortality rate for 1959 and the early months of 1960 has decreased slightly from the high point of 27.1 per thousand live births in 1958. Death rates for babies less than 3 days old have changed very little in the past 2 decades. Nonwhite infants still have a higher mortality rate than white infants.

Numbers, rates, and ratios of births out of wedlock continue to increase. The estimated number for 1958 was 208,800. The ratio per 1,000 live births increased over 1957 from 47.4 to 49.6 and the rate per 1,000 unmarried women aged 15-44 years from 20.9 to 21.0. While 40 percent of these births were to mothers under 20 years of age, the rate for such mothers declined slightly from 1957 to 1958.

In March 1959, 13.6 million married women were in the labor force and of these, 12.2 million had husbands living at home. Thirty-one percent of all wives were in the labor force. A large part of the increase in 1959 over 1958 occurred among married women 35 years old and over; relatively few of these women have children of preschool age. However, nearly 7.5 million mothers with children under 18 and nearly 3 million with children under 6 were in the labor force in March 1958.

In 1958, for the 10th consecutive year, juvenile delinquency cases increased over the previous year. The increase for 1958 was 7 percent when traffic cases were excluded. The rise, however, was much less than in other recent years and exceeded only slightly the 6 percent estimated increase in the child population. Arrest data for 1959 (preliminary) reported by the Federal Bureau of Investigation for 980 cities show that the arrests of children under 18 years increased by 5 percent over 1958. This is the lowest percentage increase noted for any year since 1954.

Major Trends

The Golden Anniversary White House Conference on Children and Youth held in Washington March 27-April 2, 1960 was the high point of the year for the Children's Bureau. Many months of planning involving hundreds of thousands of people preceded it.

Bureau personnel were involved in Conference preparation in a wide variety of ways. Regional staff worked actively with State Committees for Children and Youth and State public agencies in support of these Committees. Many of the technical specialists in the central office contributed to Conference publications, and recommended speakers, work group leaders, and resource persons. The Bureau provided the technical staff for preparation of the chartbook

sponsored by the Federal Interdepartmental Committee on Children and Youth.

At the close of the year, the Bureau was making an intensive exploration as to how the findings of the White House Conference might be implemented through its various programs. Unquestionably, these findings will influence child life throughout the Nation and throughout the world for years to come.

The review of the White House Conference findings was being undertaken in relation to the statement of 10 year goals developed by the Bureau during fiscal years 1959 and 1960.

Undoubtedly the goals' document will prove to be a benchmark for the Bureau as an interpretation of how Bureau programs can and should meet the needs of children in the years ahead.

Two reports to the Congress—The Report of the Advisory Council on Child Welfare Services and the Joint Children's Bureau-National Institute of Mental Health Report on Juvenile Delinquency—represented major Bureau accomplishments during fiscal 1960.

During fiscal 1960 the Children's Bureau and the Women's Bureau of the Department of Labor were actively planning together for the National Conference on Day Care to be held November 17 and 18, 1960 in an effort to stimulate the development of day-care services throughout the country.

Legislative Developments During the Year

The year 1960 marks a milestone in the legislative history of the Children's Bureau. For the first time in many years, legislation was enacted which substantially broadened the statutory authority under which the Bureau operates, thereby enabling the Bureau to serve children better.

The first piece of this legislation was the International Health Research Act. This Act grants new powers to the Secretary of Health, Education, and Welfare, in carrying out his responsibilities under the basic 1912 act which established the Children's Bureau. Among these new powers are authorization for establishing and maintaining fellowships and making grants for fellowships, and authorization for making grants for research, in carrying out the purposes of the Act. These purposes are twofold: (1) to advance the status of health sciences in the United States and thereby the health of the American people through cooperative endeavor with other countries in health research, and health training; and (2) to advance the international status of the health sciences through cooperative enterprises in health research, research planning, and research training.

The second piece of legislation of major significance to the Bureau is contained in the 1960 Amendments to the Social Security Act.

These amendments authorized a new program, with a separate appropriation in such sums as the Congress may determine, of grants for research or demonstration projects in the field of child welfare. Such grants may be made to public and voluntary agencies and organizations, and to institutions of higher learning. The health titles were also broadened so that special project grants may be made directly to institutions of higher learning. These amendments also increased the amounts authorized for annual appropriation to \$25 million for each of the three grant programs under Title V of the Act which are administered by the Bureau. The amounts of the previous authorizations were: maternal and child health services, \$21,500,000; crippled children's services, \$20,000,000; and child welfare services, \$17,000,000.

On September 7, 1959, the President approved H.J. Res. 317 to change the date of Child Health Day to the first Monday in October. The Department had transmitted a bill for this purpose to the Congress earlier in the year. The new date will permit the United States to link its Child Health Day observance more closely to Universal Children's Day, which many nations observe on October 1.

1960 White House Conference on Children and Youth

The Golden Anniversary White House Conference on Children and Youth was held March 27–April 2, 1960 in Washington, D.C. This was the sixth White House Conference called by a President of the United States since 1909 for a nationwide stocktaking of the needs of children and youth.

The participants numbered 7,600 persons, including 1,400 young people and 548 international guests from 86 countries. The Conference theme was: "To promote opportunities for children and youth to realize their full potential for a creative life in freedom and dignity."

A 92-member National Committee appointed by the President was responsible for the direction of the Conference. This Committee was composed of leaders in education, health, social work, recreation, religion, and many other fields concerned with children and youth.

Statewide committees were appointed by the Governor of each State and Territory at the request of the Secretary of Health, Education, and Welfare. The Children's Bureau served as the focal point in the Federal Government for the Conference planning and received Congressional appropriations in 1959, 1960, and 1961 totaling \$500,000 for the Conference and its immediate followup activities. Additional funds totaling \$568,155 were contributed by foundations, national organizations, industry, and individuals.

The Conference opened on Sunday evening, March 27, with a plenary session attended by 12,000 people and addressed by President Dwight D. Eisenhower. For the next three mornings, Conference par-

ticipants gathered first in theme assemblies of 1,500 and then in smaller Forum meetings which averaged 350 each. In the theme assemblies, they heard leading authorities speak on ideals and values, and on economic, social, cultural and technological factors affecting children and youth today. In the Forums, experts presented facts and issues related to specific aspects of the life of children and youth.

For three afternoons, the participants joined workgroups of 30 to 35 members; against the background of the morning talks, they discussed assigned topics and formulated recommendations for consideration by the Forums. These totaled 670 and are published in a pamphlet: *Recommendations: Composite Report of Forum Findings* available through the Government Printing Office. The full Conference met at the National Guard Armory on Friday morning for an overview of the findings and an address by the Honorable Arthur S. Fleming, Secretary of Health, Education, and Welfare.

Publications prepared in advance of the Conference include *Children in a Changing World*, a chart book prepared by the Federal Interdepartmental Committee on Children and Youth; the *States Report on Children and Youth*, summarizing the content of the 55 State and Territory reports; *Focus on Children and Youth*, based on materials submitted by the national organizations; *Children and Youth in the 1960's* and *Reference Papers on Children and Youth*, prepared by specialists to supply information on specific questions in the Conference program; and *The Nation's Children*, a three volume collection of background essays outlining major developments relating to children and youth in the past decade. A volume of *Conference Proceedings* will be released in the early fall of 1960.

The National Committee worked through a series of committees of its own membership. In addition, it used the auspices of three major bodies to assure full participation in Conference preparation: (1) National Council of State Committees for Children and Youth, consisting of Governor-appointed committees in 50 States, 3 Territories, the District of Columbia, and the Commonwealth of Puerto Rico; (2) the Council of National Organizations for Children and Youth, with a membership of nearly 600 national lay and professional groups concerned with the physical, mental and spiritual well-being of children and youth; and (3) the Federal Interdepartmental Committee on Children and Youth which is an affiliation of 34 agencies of Government having programs affecting children and youth.

At the request of the National Committee and in conjunction with it, the two national councils and the Interdepartmental Committee have jointly established the National Committee for Children and Youth to stimulate and coordinate the effective utilization of the Conference findings and forum recommendations during the decade ahead.

Federal Interdepartmental Committee on Children and Youth

The Interdepartmental Committee on Children and Youth, established in 1948 to provide an opportunity for the exchange of information among Federal agencies with program interests in children, held regular monthly meetings during the past year. Its major activity during fiscal 1960 was related to preparation for the 1960 White House Conference in response to the request of the President's National Committee for the Interdepartmental Committee to serve as the main channel for Federal agency participation in the Conference. One of its major contributions was the development of the chart book, *Children in a Changing World*. In addition it made available to the National Committee the knowledge, experience, and resources of the Government agencies. Over 400 persons from Federal agencies attended the Conference. Key persons from many agencies contributed professional papers for the background publications of the Conference and served as speakers and resource consultants.

Programs of the Bureau

RESEARCH IN CHILD LIFE

The Bureau's research staff has a major responsibility for carrying out the legislative mandate "to investigate and report upon all matters pertaining to the welfare of children." In addition to conducting its own studies and cooperating in joint studies, the Bureau stimulates other agencies to undertake research in child life by formulating the questions needing study, developing research methods, and providing technical advice and assistance.

Among studies receiving major emphasis were a study of infant mortality trends and a pilot survey, preparatory to a national study, of the incidence and prevalence of cystic fibrosis—a major childhood disease. Work continued on devising statistical measures of child health and health services, on the uses of maternity statistics, and on the revision of the diagnostic classification of crippled children. Another fact-finding study centered on children with congenital heart disease treated at regional heart centers.

In response to a Congressional request the Bureau, in conjunction with the National Institute for Mental Health, conducted numerous studies and reviews in the area of juvenile delinquency. The Bureau helped prepare *The Report to the Congress on Juvenile Delinquency* and has published a series of 16 pamphlets addressed to a technical audience entitled *Juvenile Delinquency: Facts and Facets*. In order to obtain basic data on youth attitudes and values, arrangements have

been made with Washington University in St. Louis to begin one of the studies of teenage culture which it is hoped to initiate in several communities.

Other projects included participation in the Department's work on the National Survey of Social Welfare Manpower, a national survey of licensed day-care facilities, and preparing the report on the study of the outcome of independent adoptions.

During the year, the Bureau compiled and published current statistical data received from State agencies administering the maternal and child health, crippled children's, and child welfare programs. It also published statistical data on voluntary child welfare services, the work of juvenile courts and public training schools for juvenile delinquents, and on adoption programs. During fiscal 1960 a publication, *Trends—Child Welfare Services, Juvenile Court Cases, Crippled Children's Services, Maternal and Child Health Services* supplemented and summarized these reports.

As part of its research interpretation activities the Bureau helped prepare the chart book and produced a number of Fact Sheets for the Golden Anniversary White House Conference on Children and Youth. Working papers were prepared for the Advisory Council on Child Welfare Services. Progress continued on the revision of *Prenatal Care* and work began on the revision of *Your Child From One to Six*, two among many of the publications for parents on child growth and development. Two issues of *Research Relating to Children*, an inventory of current research in child life, were published during fiscal 1960 and a special listing *Research Relating to Mentally Retarded Children* was prepared. Also published was *Some Guide Lines for Evaluative Research*, an examination of the problems in research on evaluating efforts to bring about social or emotional change in individuals.

The research staff worked with or gave consultation requested by State health and welfare departments, national organizations, and university groups on studies of such subjects as accident prevention, correlates of handicapping conditions in childhood, cultural aspects of delinquency, child-rearing practices, illegitimacy, marital problems, adoption, and day-care services.

MATERNAL AND CHILD HEALTH SERVICES

All States, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam receive Federal funds to extend and improve services for promoting health of mothers and children.

For the fiscal year 1960, the appropriation for maternal and child health increased to \$17,500,000, with \$1 million earmarked for services to mentally retarded children.

The infant mortality rate which went up in 1957 for the first time in 22 years continues at a relatively high level.

The 1956 rate was 26.0; in 1957 it was 26.3; in 1958, 27.1. The preliminary rates for 1959 and 1960 are: 26.4 and 25.7 (7 monthly only) respectively.

In 1957, for the first time in 29 years, the maternal mortality rate did not fall but rather stood still for a year, i.e., the rate remained 4.1 for both 1956 and 1957; in 1958 it declined again to 3.8. The lack of progress shown in 1957 was due to an increase of nonwhite rates from 11.1 in 1956 to 11.8 in 1957; the maternal mortality rate for white mothers decreased from 2.9 to 2.8 in these years.

Concern regarding the relatively high level of infant mortality has been reflected in increased activity in State programs, including studies and services. Some of the studies aimed at pinpointing specific problems, needs and gaps in services have included surveys of communities to locate those women with no or inadequate prenatal care, the characteristics of these women, their pregnancy outcome in comparison to the community as a whole.

Because the great bulk of infant deaths now occur very early in the first year of life, more than one-third on the first day, approximately half in the first three days, nine out of ten in the first five months, and because nearly three times as many deaths are due to prenatal and natal causes as to postnatal causes, major program emphasis is on the mother *before* the birth of the child. Extension of prenatal services to population groups, not previously receiving care, in both urban and rural communities, including renewed efforts of public health agencies to bring services to mothers *early* in pregnancy, is an example of widespread State activity.

The increase in maternity services is reflected in the number of women who received maternity medical clinic service in 1958, viz., 266,028 mothers, an increase of 10.7 percent over 1957 when 240,630 mothers received such care. Nursing services to maternity patients increased even more, viz., 25.9 percent from 446,843 mothers visited in 1957 to 562,487 in 1958. Dental treatment to maternity patients more than doubled between 1957 and 1958. Mothers receiving hospital inpatient care under the maternal and child health program, chiefly hospitalization for complications of pregnancy, increased from 39,562 in 1957 to 40,910 in 1958.

An important factor in both maternal and infant health and maternity care has been the sheer number of births, especially since 1946 when birth rates have been at a consistently high level. In the 12 years (1946-1957) the number of births increased by almost 30 percent and by nearly a million births.

Certain other demographic changes also point to reasons for the intensification of services. Neither the infant mortality level nor the rate of decline are uniform for all areas or population groups. In 1958 the infant mortality rate for the State with the highest rate,

Mississippi, 41.0 was nearly double that for the State with the lowest rate, Rhode Island, 21.3. The infant mortality rate for nonwhite infants in 1958 was close to twice that for white infants, 45.7 and 23.8 respectively.

In addition, the nonwhite infant mortality rate did not decline (1956-57). Between 1950 and 1958 nonwhite births increased from 13.8 percent to 15.0 percent of total births; the estimated number of births to unwed mothers increased from 141,600 to 208,700; births to women under 20 increased from 12.1 percent in 1950 to 13.5 percent in 1958; family size increased as illustrated by the fact that the number of fifth and later pregnancies increased from 12.5 percent in 1950 to 16.1 percent in 1958—all of which are factors contributing to higher infant mortality rates.

Services to children under the maternal and child health program (except for services to mentally retarded children) were not increased in all categories. Nearly 1.45 million children received services in well-child conferences in 1958, a 9.2 percent increase over 1957; the number of infants seen increased somewhat more than the number of preschool children, 10.6 percent as compared to 8.2 percent. Nursing service was given to more than 3 million in 1957. The number of premature infants hospitalized increased by 11.3 percent to a total of 5,794 infants. The number of children receiving dental treatments remained about the same, an increase of 0.4 percent to nearly 509,000 in 1958.

On the other hand, the number of children receiving pediatric clinic service declined 1.2 percent to about 145,000 and of those receiving hospital inpatient care (exclusive of prematures) 28 percent, to about 21,000.

School health examinations increased by 17.5 percent; physicians giving examinations to nearly 2.6 million children in 1958. More than 5.0 million school children received visual screening tests, a 23.5 percent increase; nearly 3½ million had audiometer screening tests, a 19.4 percent increase.

The number of children immunized against smallpox, 2.7 million; diphtheria, 3.2 million; pertussis, 2.3 million, and tetanus, 3.0 million, increased. Although the number immunized against polio was 5.2 million (greater than the number immunized against any of the above diseases), it represented a 56 percent decrease in the number of children immunized against polio (11.8 million in 1957 to 5.2 million in 1958) and as contrasted to 13.2 million in 1956.

States showed increased interest in broadening their programs to areas which have heretofore been considered ancillary to maternal and child health such as homemaker and day-care services and parent education.

During the past year, clinic services including complete evaluation, diagnosis, and followup care were provided through special programs of maternal and child health for almost 9,000 mentally retarded children and their families. In addition, over 1,800 requests for services which could not be handled were received by these programs. The movement toward earlier casefinding and identification of retarded children is continuing and is reflected by statistics on new cases seen in these special programs (31.2 percent were under 4 years of age and 75.6 were under 9 years of age).

The increase in numbers of children served directly by these special programs is primarily a reflection of greater selectivity and flexibility in the use of diagnostic approaches coming with staff experience.

Actual expansion of services to mentally retarded children and their families during the past year through this program has occurred primarily through the greater involvement of local resources and the concentration of project staff time on inservice training programs. These efforts have resulted in the tremendous increase in the availability of services to the retarded provided by local individuals and agencies which previously had not been interested or had not felt competent to provide such services.

Interest in developing screening, detection, and treatment programs for phenylketonuria has continued to mount on the part of State and local health services. While screening programs for well baby populations have been developed in almost half of the States, the major efforts during the past year have been on screening high risk groups (institutions for the mentally retarded and retarded children in special classes). In such groups the incidence of the condition is about 1 percent of the population. Such screening permits easy location of families in which the condition occurs and, on this basis, it is possible to locate infants in these families who may have the condition and can be treated. This type of pursuit of high risk groups has yielded a high return of infants who have the condition and in whom it is believed mental retardation can be prevented through a special diet. Spot surveys seem to indicate that as many as 12 to 15 percent of the children in affected families located through high risk group surveys have the condition but are undiagnosed and untreated.

CRIPPLED CHILDREN'S SERVICES

All the States (excepting Arizona), the District of Columbia, Puerto Rico, the Virgin Islands, and Guam are participating in the crippled children's program. Although the State agency auspices vary, the objective is uniform; namely; to locate children who require care and to provide restoration through diagnosis, medical and surgical treatment, and alleviation of unfavorable social and psychologi-

cal influences which adversely affect the degree and duration of the disability. The appropriation for crippled children's services is \$16 million, \$4 million less than the amount authorized.

State crippled children's programs throughout the country served more than 325,000 children in 1958, an increase of 3.9 percent over the year before. This represents over 50 percent more children receiving physician's services in 1958 than at the beginning of the decade. During these years the number of handicapped children under care in official programs rose from 3.9 per 1,000 children under 21 in the United States to 4.8 per 1,000.

Broadening the crippled children's program to include children handicapped with conditions not formerly covered continues. Examples of categories receiving increased attention by States are: cystic fibrosis, nephrosis, and neurological defects. Services for children with multiple handicaps, such as the so-called brain-damaged child and the deaf-blind child, are increasing.

Physician's services to children increased whether given in the clinic, office, home, hospital, or convalescent home. Though the number of children receiving care in hospitals or convalescent homes increased slightly, the trend toward smaller average number of days of care in hospitals and convalescent homes continued.

The proportion of children with congenital malformations continues to increase so that they now constitute 26.4 percent of the total cared for under the crippled children's program (1958). One of the largest increases in the number of children with any one condition was in children with congenital malformation of the circulatory system. Reflecting scientific advances in the treatment of congenital heart disease and the availability of services made possible through a special appropriation for services to these children, plus use of some regular crippled children's funds, the number of children served increased from 2,200 in 1950 to more than 12,000 in 1958, an increase of about 450 percent.

The increase in funds for congenital heart disease made it possible for regional heart centers to reduce the backlog of cases waiting for treatment; the additional funds also relieved in most States the critical shortage of funds which was resulting in curtailment of services for all crippled children. As more hospitals throughout the country meet the standards of the American Heart Association for centers performing heart surgery, an increasing number of States are able to treat children in their own facilities.

As State maternal and child health programs of hearing conservation have expanded the need for standardization of screening procedures has become more urgent. Therefore, the Children's Bureau arranged a conference of nationally recognized leaders in the hearing field. They reviewed the present status of hearing testing programs

and developed a set of recommendations covering the technical aspects of testing procedures for hearing loss.

To bring latest advances in hearing aids and surgery of the ear to children who need them, the State crippled children's agencies are caring for an increasing number of children with hearing loss and diseases of the ear, viz., 19,700 in 1958 as compared to 12,500 in 1950. The extensive problem of chronic middle ear infection in certain children, such as the Indian children of the Southwest, children in Alaska, Hawaii, and Guam is being reduced.

CHILD WELFARE SERVICES

The report of the Advisory Council on Child Welfare Services, transmitted to the Secretary and the Congress on December 28, 1959, was an event of major significance for child welfare programs throughout the country. Both the accomplishments and inadequacies of the Nation's child welfare programs were studied by the Council.

The 15 recommendations made by the Council range from a new, broad definition of child welfare services to urging that the Children's Bureau be expanded so that it could continue in its national leadership role.

In what is doubtless the Council's most controversial recommendation, it proposed that the Federal Government pay part of the total cost of public child welfare services of each State through grants-in-aid on a variable matching basis and with provision for an open-end appropriation. However, pending passage of such Federal participation in the total cost of child welfare services, the Council recommended "That the authorization and appropriation for child welfare services be raised substantially." The Council declared that the goals set forth for improvement in the structure and implementation of child welfare services "represent stern reality in that they reflect the changes in our society in the last decade." To meet these changes "will require the most imaginative and creative planning that our nation can muster."

Good progress was made in the further implementation of the 1958 amendments to Title V, part 3 of the Social Security Act. The Federal share provision became effective July 1, 1959. An evaluation of the first year's experience was being made at the close of this fiscal year. The reallotment provision, based upon the experience in 1959 and 1960, has proved on the whole to be useful and effective. Four States released \$130,650. This money was allocated to 18 States as an addition to their initial allotment. While none of the 18 States received the full amount they requested, allocations ranged from \$1,023 to \$16,693.

Although the \$13,000,000 appropriation for the 1960 fiscal year was the largest ever made for the child welfare services program, it was not sufficient to make fully effective the new allotment formula. As a result 36 States received the "base allotment," as provided in the 1958 amendments. State plans and budgets provided for some new developments, but the Federal allotments for the most part were used to meet the costs of the on-going child welfare programs.

State reports continue to stress the drain on State health, welfare, and education appropriations caused by the increasing child population. That the States have need for additional funds and the ability to use them is evidenced by the following tabulation:

Year	Appropriation	Payments	In Federal Treasury, June 30	
			Amount	Percentage
1960-----	\$13,000,000	\$12,902,037	\$97,963	0.8
1959-----	12,000,000	11,833,299	166,701	1.4

The balance of 0.8 percent remaining in the Federal Treasury this year represents a record "low."

A great number of shifts in top State welfare personnel this past year accelerated the joint planning by the Children's Bureau and the Bureau of Public Assistance for orientation of new State administrators. The Division of Social Services within the Children's Bureau made arrangements for orientation of four administrators under this plan.

The Division also developed a plan for orientation of new child welfare directors to the Children's Bureau. Three groups were brought into the Bureau during the year and arrangements were made for one director on an individual basis. States represented included Maine, Michigan, New Hampshire, Ohio, Rhode Island, Tennessee, West Virginia, Utah, and Virgin Islands.

The difficulty of maintaining consistent, overall leadership in State child welfare programs is underscored by the situation in Regions I and V. New administrative people were appointed in 5 of the 6 States in Region I. There have been 3 new directors of child welfare in Region V this past year, with Ohio announcing late this spring a second change in less than a year. Such changes not only influence program development but affect considerably the focus of consultation to States by the Federal staff.

Relatively little substantive legislation affecting child welfare was passed in the States this fiscal year. Many of the State legislatures were not in session or were in session for consideration of special budget matters. Perhaps the most significant law in terms of its im-

plications for children was one enacted in New York—the Interstate Compact on Child Placement. The Compact was developed by the State of New York Joint Legislative Committee on Interstate Cooperation, affiliated with the Council of State Governments. The purpose of the Compact is to protect children involved in interstate placements, so that they will have “the maximum opportunity to be placed in a suitable environment and with persons or institutions having appropriate qualifications and facilities to provide a necessary and desirable degree and type of care.” It relates specifically to situations where appropriate public officials or social agencies are responsible for the placement. The hazards would be reduced by the provision for uniform and orderly procedures, defining responsibilities of sending and receiving States, and providing penalties for non-performance. These protections were agreed upon at a conference called by the New York Joint Legislative Committee. Participants included State Attorneys General, public and voluntary child-placing agencies from the northeast States, plus staff from the Children’s Bureau and Child Welfare League of America. The New York bill becomes effective September 1, 1960. It is hoped that other States will adopt the Compact as quickly as their State situations permit.

The need for qualified personnel in child welfare continues to be acute. Several States during the past year have planned for a substantial expansion of educational leave programs. This represents a positive step forward toward the goal of improved child welfare services. New York, New Jersey, Ohio, and Pennsylvania are all making provision for an increased number of individuals to attend schools of social work; it is estimated that over 175 staff members will be in school from these 4 States alone. Ohio’s 50 represent more than twice the number of educational leave grants from this State in years past.

In adding to actual numbers of staff, progress nationally was slow. As of June 1958, there were 6,631 full-time child welfare staff. In June 1959, the number was 7,026. Staff needs, on the other hand, were rapidly increasing in regard to coverage of existing services and for extending both basic and specialized child welfare services. A pamphlet, *In Search of Staff for Child Welfare*, prepared by the Bureau’s specialist on staff development this year, brings together a number of recruitment methods which have proven successful in the public child welfare programs.

Heartening gains were made on both the Federal and State level in joint planning for the welfare of families and children. The Children’s Bureau-Public Assistance policy statement on Social Services to Families and Children was released on September 14, 1959. Staff of the two Bureaus, both in Washington and in the Regions, have been considering how best to implement the new policy state-

ment. Children's Bureau and Public Assistance staff in Regions III, IV and V report fruitful joint discussion and exploration with States in these regions on the implications of the document, particularly on how to strengthen services in ADC families.

Child welfare and public assistance personnel in those States in which "suitability of home" legislation was passed have been particularly active in working together. They are concerned, as are the two Federal Bureaus, that every effort be made to offer as much protection as possible to children and families in the administration of these laws.

Preparation of a *Technical Manual on Social Services for Emergency Welfare Services* represented another cooperative planning and work area for the two Bureaus. A child welfare specialist on civil defense planning was employed by the Children's Bureau for this purpose. This specialist and other Children's Bureau staff participated in an Ad Hoc Advisory Committee on Emergency Welfare Services to review the manual material.

Development within the States of other services to children in their own homes, such as day care and homemaker services, continued to be uneven. Major problems continue to block effective development of homemaker services, including (1) financing; (2) a functional definition of homemaker services acceptable to both the health and welfare fields; (3) a strong national voluntary agency to take leadership; and (4) limited service from public agencies at all governmental levels.

Following the National Conference on Homemaker Service in February 1959, both the National Committee on Homemaker Service and the Executive Committee of the National Conference have continued meeting to plan for the development of a national homemaker service organization. Recently a proposal has been adopted by the Executive Committee that such a permanent organization be established to coordinate homemaker services at the national level and offer consultant services to communities wishing to develop these services. The Children's Bureau as well as other national public and voluntary agencies are represented on the Executive Committee.

The decision to hold a national day care conference in Washington during November 1960 was made with the hope that such a conference will center attention on "an urgent and growing national need." It is being called under the joint sponsorship of the Children's Bureau and the Women's Bureau of the Department of Labor.

A number of reports and papers are being prepared for the use of participants and a special day care film, produced cooperatively with the Pennsylvania Department of Public Welfare, will be available for showings. Responses to the national Children's Bureau-Women's Bureau day care survey made last year indicated that resources exist throughout the country that could provide support for needed pro-

grams if interpretation of the need and the vehicles for coordination of effort were to be increased and strengthened.

Several noteworthy advancements can be reported in other child welfare areas:

1. An important step toward improvement of adoption services was taken at a 1-day meeting called by the Bureau in May 1960. Representatives of the American Medical Association, the American Academy of Pediatrics, the American Academy of General Practice, the American College of Obstetrics and Gynecology, the American Bar Association and the Child Welfare League of America considered concrete ways of achieving cooperation among these national organizations in the field of adoptions. It was the first time that these national medical groups and the American Bar Association have met together on this subject.

2. Joint meetings of Children's Bureau and Public Assistance staff in Regions I and V were held to review a statement developed by central office specialists of the Children's Bureau and the Bureau of Public Assistance on *Services to Unmarried Parents; More Effective Approaches Through Public Welfare*.

3. Some movement occurred in the development of much-needed small group homes for adolescents, primarily under voluntary auspices. Agencies in Connecticut, Illinois, Virginia, and Wisconsin are involved.

4. The Bureau's specialist on social services to mentally retarded children gave consultation to the Southern Regional Educational Board on setting up a joint training project for attendant personnel in southeastern institutions for the mentally retarded. Immediate objectives were to develop a core curriculum and to train key personnel to administer and supervise the teaching process. Conferences were also held with the National Institute of Mental Health and the Office of Vocational Rehabilitation in regard to training needs of social workers and rehabilitation counselors in providing services for the mentally retarded.

5. Division of Social Services staff have participated in a number of special meetings called to consider the needs of children of migratory workers. Among these were a meeting of the President's Committee on Migratory Labor and the Migrant Ministry of the National Council of Churches, and an Atlantic Seaboard conference called by the Council of State Governments to consider day care needs of these children. Concern regarding the adequacy of care available for children whose mothers are employed in the domestic agricultural field has led the Senate Appropriations Committee to direct the Children's Bureau to report by February 1, 1961 "on this problem and the measures to alleviate the adverse conditions which exist."

An appreciable and increasing amount of staff time of the Division of Social Services was devoted to activities in the international area. Highlights include: participation by the Bureau's specialist on group care in the Eleventh Pan American Child Congress in Bogota, Columbia; preparation by Division staff of materials for the official United States reports to the above Congress and to the Lisbon meeting of the International Union for Child Welfare being held in July 1960; preparation of materials for special United Nations reports.

State and local community planning efforts for children this past year were focused, in the main, upon preparation for the 1960 White House Conference on Children and Youth. Having returned to their local communities, the many citizens and agencies are now turning their efforts to "follow-up." By the end of the fiscal year State committees were in the process of putting the Conference recommendations into effect. Indications are that an encouraging number of permanent organizations have already been established or are being planned.

Greatest expressed needs are for dynamic leadership and consultation from the national level, plus funds from State sources to continue committee work. Division of Social Services staff, both central office and regional, participated in the Conference and accepted special work assignments during the sessions. Two of the Division's specialists shared authorship on a paper dealing with care of children away from their own homes for the White House Conference volume *Reference Papers on Children and Youth*.

JUVENILE DELINQUENCY SERVICE

Juvenile delinquency continues to be a subject of great public interest and concern. Congress continued to be active. One bill (S. 694) passed the Senate. It provided for Federal assistance for projects which will demonstrate or develop techniques leading to the solution of delinquency control problems. Several bills essentially the same were introduced in the House. One bill (H.R. 12108), reported out of committee, provided for Federal grants or contracts to carry out projects with respect to techniques and practices for the prevention, diminution and control of juvenile delinquency, and for training of personnel.

That the interest of States continues is evidenced by the fact that the National Governors' Conference passed a resolution establishing a committee on juvenile delinquency "to help marshal all public and private efforts to combat juvenile delinquency and to serve as liaison with the several agencies of the Federal Government, with the several State governments and with the public and private agencies working in the field of juvenile delinquency prevention."

During the year, a considerable amount of staff time was devoted to the Joint Report of the Children's Bureau-National Institute of Mental Health on Juvenile Delinquency. This involved attendance at meetings, development of material, as well as consultation and review of material. Staff specialists in juvenile delinquency also devoted time to White House Conference planning, involving consultation and participation in the Conference as resource persons.

Because of the above activities and work planning, which emphasized the development of written material, the volume of consultation was slightly less this year. Consultation, either in the field, by correspondence, or office interviews was provided in response to almost 700 requests. All but three of the States received some type of consultation service during the year. In addition, over 50 foreign visitors, representing 26 countries, were provided program information and technical assistance through office interviews.

In the spring of 1959, with the aid of Children's Bureau staff, a meeting was convened in Washington attended by staff members of municipal and State youth commissions having delinquency prevention responsibilities. Its purpose was to exchange information and discuss problems of mutual concern. This was the first joint meeting of State and municipal commission representatives as each group met separately the previous year. Forty-four participants from 19 States, 17 representing local commissions, and 23 State commissions, took part.

Of particular interest at the local level is the establishment of metropolitan government in the greater Miami area. Progress to date has been confined pretty much to physical services such as water supply, sewage disposal, and fire and insect control. Some indications exist of the possible development of a metropolitan system of youth services and programs. Such a development would have significance for all social services.

In February, the Children's Bureau convened a 2-day conference of a small group composed of social workers, law enforcement officers and probation personnel to identify and discuss the problems which inhibit the development of close working relationships between law enforcement officers and youth workers, particularly those working with hostile anti-social gangs. The trend for police departments to drop certain activities related to recreation or social services continues. The International Association of Chiefs of Police has recently indicated its position that the provision of such services are not appropriate departmental functions.

A major staff project in the area of training this year was the conducting of a week-long National Workshop on Training for Probation Services in Juvenile Courts. This workshop, made possible

by a Ford Foundation grant, was sponsored jointly by the Children's Bureau, the National Council on Crime and Delinquency, the Council on Social Work Education, and Wayne State School of Social Work.

The purpose of the workshop was to reexamine the knowledge, skills, and attitudes needed to work with children on probation and to develop effective ways through professional education and in-service training of getting such knowledge and skills to probation officers without professional training. The workshop was attended by 24 participants, educators, and program personnel from 18 different States. In addition to the above project, the staff conducted numerous workshops and institutes.

Another significant trend is the growing awareness on the part of schools of social work of the needs of the correctional field, and their expanding activity in this area. More schools of social work are beginning to develop field work placements in corrections, add faculty members with correctional competence and develop an educational partnership with State and local correctional agencies.

Several States are adding facilities for the care of delinquent children. Interest in the use of camps for the care and treatment of delinquent children also has continued. Since work on written guides was emphasized during the year and because of the great demand for consultation concerning the establishment and operation of camps, a substantial block of time was devoted to the development of a new publication, *Camps for Delinquent Youth: A Guide to Planning*.

Another new publication, *Detention Planning*, was produced to help meet the ever increasing requests for consultation on detention care and planning. Because of general interest of citizens in juvenile delinquency, another non-technical publication, *A Look at Juvenile Delinquency*, was produced. Ten other articles on juvenile delinquency were written by Bureau staff and appeared in professional publications or were issued as one of the *Facts and Facets* series.

Cooperative work was carried on with the National Council on Crime and Delinquency, American Correctional Association, Council on Social Work Education, Child Welfare League, the National Council of Juvenile Court Judges, National Social Welfare Assembly, and the Family Service Association of America.

INTERNATIONAL COOPERATION

The usual fall and spring sessions of the Executive Board of UNICEF were held with the Chief and the Deputy Chief of the Bureau on the United States delegation. Beginning in 1961 only one main meeting a year, in June, will be held to consider policy, with two meetings per year of the Program Committee to pass on projects. This change in procedure is expected to produce more efficient oper-

ation. The United States contribution increased to \$12,000,000 but the percent which this may be of the total contributions by all countries was reduced to 48 percent. Though it appeared at first that all the United States money could not be taken up by UNICEF, before the close of the year contributions from other Governments were sufficient to make the full United States amount available.

At the spring session, the United States had the satisfaction of seeing the first fruits of its efforts to launch UNICEF into social services for children. Four projects were approved, all rather simple beginnings, but soundly planned by an expert consultant working through the Bureau of Social Affairs.

With 10 years experience in a long-range program, UNICEF is undertaking two program studies, one on training projects to which it has given assistance, with a view to recommendations on the future of this activity, and the other a study of children's needs carried out in a manner to help countries assess their own needs and make plans to meet them.

The Chief of the Bureau headed the official United States Delegation to the Eleventh Pan American Child Congress in Bogota, Colombia. A member of the Division of Social Services was also a delegate. Other staff members attended the Second World Conference on Medical Education in Chicago, the Ninth International Congress of Pediatrics in Montreal, and the First International Medical Conference on Mental Retardation in Portland, Maine.

A Bureau proposal for a United States-Russian Exchange in the area of maternal and child health was requested by the Public Health Service and was developed. An Exchange with Russia was subsequently arranged by the Public Health Service on maternal and child care and related research and the Children's Bureau will be represented on the United States team.

Preparation of material for reports to the United Nations required an unusually large amount of time this year. In addition to the United Nations Biennial Report on Family, Youth, and Child Welfare and Administration of Social Services, material was prepared for the United Nations Yearbook on Human Rights. The United Nations also requested a special report, for this year only, on *Experience in the Field of Social Development of Potential Assistance to Underdeveloped Countries*. Comments on documents and position papers related to the International Labor Organization, the Food and Agriculture Organization, and the World Health Organization were prepared. Material was also prepared for the use of the delegates to the Pan American Child Congress in Bogota, and for a United States Delegate at meetings of the South Pacific Commission.

Working relationships, including correspondence and exchange of materials, have continued with the Inter-American Children's Institute, the Pan American Health Organization, and a number of international voluntary organizations whose program, in whole or in part, is related to children.

Under the continuing cooperative program with the International Cooperation Administration, the Bureau's staff in its Division of International Cooperation recruits United States specialists for maternal and child health and child welfare positions abroad, provides technical materials, advice, and information as requested, and plans and arranges training programs for persons from other countries.

Seven maternal and child health and child welfare specialists recruited and backstopped by the Bureau worked as consultants in seven countries. A maternal and child health nurse was in Guatemala and a pediatric nurse in India. A medical social worker was in Peru, a child welfare worker in El Salvador, and a consultant on juvenile delinquency in Korea. There were two maternal and child health physicians, one in Iraq and one in Paraguay.

Of the 76 students for whom the training branch of the Division arranged long-term programs of study and observation during the year, 36 were doctors, 17 were nurses, 1 was a health educator, and 22 were social workers.

The International Cooperation Administration was the sponsoring agency for 50 of the participants, the United Nations for 9, and the World Health Organization for 12. Three Swedish child welfare workers were sponsored by the International Education Exchange Service of the Department of State. One physician came through the Asia Foundation, another was sponsored by the American Association of University Women.

The trainees came from 38 countries, with Indonesia having sent the largest number, 10; Thailand and India, 8 each; and Brazil, 6.

The 36 physicians were interested in increasing their competency in pediatrics, maternal and child health, or obstetrics and gynecology. The field of interest for most of the nurses was pediatric nursing, with a few in maternity or a combination of maternity and pediatric nursing. All of the social workers had a primary interest in training for work with children. Of the 22 social workers, 3 had major interest in group work with children, 1 was a medical social worker, and 1 a psychiatric social worker. The majority of the social workers came for general child welfare.

For a variety of reasons—the language problem, the accreditation status of the trainees' former education, the time span permitted, and the type of training requested by the sponsoring agency—most of the trainees who take academic work enter the schools of medicine, nursing, and social work as special students and not as candidates for de-

grees. During the year, however, two students obtained master's degrees in social work, one nursing student received a bachelor's degree, and two physicians received the degree of master of public health. The trend toward training physicians in the specialties of obstetrics and pediatrics to equip them to teach in medical schools continued. This effort to upgrade medical education is now being extended to nursing education in the same countries.

One hundred and fifty-eight short-term visitors from 60 countries came to the Bureau during the year. These were visitors studying in this country under the auspices of another Federal agency such as the International Educational Exchange Service of the Department of State, a private organization such as the National Council of Jewish Women, other agencies within the Department of Health, Education, and Welfare, or who are on their own. Their one common interest is some aspect of services for children which leads them to the Bureau for orientation to its programs, for consultation with Bureau specialists, and for conferences with staff of other agencies arranged by the Bureau.

Federal Credit Unions

The accomplishments of the Federal credit union program during the 1950's, spectacular though they were, served merely as a jumping-off point to even greater achievements in the years that lie ahead. The Federal credit union program rounded out a quarter of a century of service to the members in 1959, and by the end of that year, more than 9,400 Federal groups were serving 5½ million members. During this first 25-year span of operations, the Federal program has grown from a handful of change—\$7.75 worth—pooled in 1934 by a few persons in Texarkana, Texas, to start Federal Credit Union Number 1 to a total of \$2,353 million in assets at the end of 1959.

The decade ahead will present new challenges and new problems, but at the same time it will afford even greater opportunities for service to the members, not only in the financial field, but in the broad area of social welfare services as well. Continuing encouragement of thrift and expansion of financial counseling to members of Federal credit unions are only two of the services provided by these groups.

Early in fiscal year 1960, Congress provided the impetus for an expanded Federal credit union program by passing, without a single dissenting vote, a modern Federal Credit Union Act¹ which places greater responsibilities on the Federal credit union officials and enables them to provide better services to the members. The new act streamlines administration of the program, thereby increasing efficiency of

¹ Public Law 86-354, signed by the President on September 22, 1959.

operations with concomitant reduction in operating expenses. Savings thus achieved will enure to the benefit of the members in the form of expanded services.

The Federal credit union program is designed to serve two primary purposes: (1) To encourage thrift through systematic saving, and (2) to provide a source of credit to the members through loans for provident and productive purposes. The data in Table 11 reveal to some extent the progress that has been made in these areas. Growth is further revealed in the averages that follow:

Year ended Dec. 31—	Average mem- bership	Average shares	Average loans	Year ended Dec. 31—	Average mem- bership	Average shares	Average loans
1934.....	83	\$7	(1)	1947.....	376	\$133	\$194
1935.....	156	19	(1)	1948.....	401	144	227
1936.....	180	28	(1)	1949.....	405	157	260
1937.....	213	37	(1)	1950.....	427	170	299
1938.....	230	43	(1)	1951.....	456	185	297
1939.....	268	51	(1)	1952.....	482	209	351
1940.....	302	58	(1)	1953.....	495	236	388
1941.....	337	69	(1)	1954.....	498	259	394
1942.....	331	81	(1)	1955.....	517	282	447
1943.....	337	90	\$112	1956.....	539	303	479
1944.....	344	102	118	1957.....	561	324	516
1945.....	324	116	130	1958.....	577	348	535
1946.....	346	123	159	1959.....	597	368	593

¹ Basic data not available.

By the end of 1959, average savings (shares) of Federal credit union members had risen to \$368, and loans to members averaged \$593. Aggregate savings, meanwhile, passed the \$2-billion mark in 1959, and loans to members stood at \$1.7 billion at the year-end.

The Bureau of Federal Credit Unions, which is charged with the responsibility for administering the Federal Credit Union Act, is constantly alert to the changing conditions and new problems created by growth of the credit unions. Examination and supervision of the Federal groups represents the major phase of Bureau operations, and is carried on through 10 regional offices. Field examiners, who work out of these offices, represent the Bureau's primary contact with the Federal credit unions, and training programs conducted by the Bureau are consequently directed principally to the examiners. The Bureau's goal is to examine all active groups at least annually, though difficulty in recruiting and maintaining a full staff of examiners sometimes results in a completion rate somewhat below 100 percent. In fiscal year 1960, for example, 92 percent of the scheduled examinations were completed.

In addition to the continuing growth in the program throughout the fiscal year, it was necessary to set aside staff time during the last half of the period to implement the 1959 amendments to the Federal Credit Union Act. Development of new standard bylaws for Federal credit unions to reflect changes in the law and revision of most

of the Bureau's publications were accomplished by fiscal year's end.

Improvement of communications between the Bureau and Federal credit unions, and between the Bureau and the general public represents an area of emphasis that received attention during fiscal year 1960, and this activity will continue throughout the ensuing fiscal year. An important step in this area was preparation of a special 25th Anniversary issue of the Bureau's annual *Report of Operations—Federal Credit Unions*. The *Report*, which normally presents data for the current calendar year, was expanded to include a brief summary of legislative and other developments during the first 25-year span of operations; also, selected data for each year 1935–59 were presented in 20 supplementary tables which are intended to serve as a source for research and other purposes. A companion report on State-chartered credit unions was in preparation as the fiscal year ended.

The Federal Credit Union Act of 1959 represents a major step forward in Federal credit union operations. It does not, however, change the nature and scope of Federal credit unions, which are privately owned corporations designed to function in the short-term consumer credit area.

Table 1.—Social Security Administration: Funds available and obligations incurred, fiscal years 1960 and 1959¹

(In thousands, data as of June 30, 1960)

Item	Funds available ²		Obligations incurred	
	1960	1959	1960	1959
Total.....	\$2,274,364	\$2,181,896	\$2,268,911	\$2,180,025
Grants to States:				
Public assistance.....	2,037,500	1,957,960	2,033,761	1,957,098
Old-age assistance.....			1,157,523	1,132,194
Aid to the blind.....			48,824	47,619
Aid to dependent children.....			660,232	626,546
Aid to the permanently and totally disabled.....			167,182	150,739
Maternal and child health and welfare services.....	46,500	45,000	46,218	44,728
Maternal and child health services.....	17,500	16,500	17,443	16,494
Services for crippled children.....	16,000	16,500	15,873	16,401
Child welfare services.....	13,000	12,000	12,902	11,833
Administrative expenses: ³	190,364	178,936	188,932	178,199
Office of the Commissioner ⁴	613	610	602	596
Bureau of Old-Age and Survivors Insurance ⁵	181,600	170,614	180,476	170,087
Bureau of Public Assistance.....	2,345	2,164	2,280	2,142
Children's Bureau ⁶	2,300	2,172	2,278	2,165
White House Conference on Children and Youth.....	200	150	198	150
Bureau of Federal Credit Unions.....	3,306	3,226	3,098	3,059

¹ Funds available and obligations reported by administrative agencies.

² Funds made available by regular and supplemental appropriations, authorizations, transfers, allotments, recoveries, and fee collections for services rendered.

³ Funds made available and obligations incurred for salaries, printing and binding, communications, traveling expenses, and all other objects of expenditure.

⁴ Appropriations by Congress from general revenues accounted for approximately 55 percent of the administrative expenses of the Office of the Commissioner in 1959 and 1956; balance from old-age and survivors insurance trust fund.

⁵ Administrative costs of the old-age, survivors, and disability insurance program which involved benefit payments of \$9,388,000,000, in 1959 and \$10,798,000,000, in 1960. Does not include construction costs of new buildings as follows: *Funds available:* 1959, \$8,979,461; 1960, \$7,633,774. *Obligations incurred:* 1959, \$1,345,587; 1960, \$2,454,189.

⁶ Includes expenses for investigating and reporting on matters pertaining to the welfare of children authorized by the act of 1912, as well as expenses for administration of grants to States.

Table 2.—Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1958–60

[In millions; independently rounded]

Item	1960	1959	1958
Contributions collected under—			
Federal Insurance Contributions Act ^{1 2}	\$10,830	\$8,460	\$8,193
Federal Unemployment Tax Act ³	341	324	336
State unemployment insurance laws ^{4 5}	2,165	1,675	1,500
Old-age and survivors insurance trust fund:			
Receipts, total.....	10,342	8,109	7,824
Net appropriations and deposits.....	9,843	7,565	7,267
Net interest and profits on investments ⁶	500	540	557
Expenditures, total.....	11,055	9,377	8,041
Monthly benefits and lump-sum payments ⁷	10,270	9,049	7,875
Transfers under financial interchange with railroad retirement account.....	583	121	-----
Administration.....	202	206	166
Assets, end of year.....	20,829	21,541	22,813
Disability insurance trust fund:			
Receipts, total.....	1,061	928	942
Net appropriations and deposits.....	987	895	926
Transfers under financial interchange with railroad retirement account.....	26	-----	-----
Net interest and profit.....	48	33	16
Expenditures, total.....	560	360	180
Monthly benefits.....	528	339	163
Administration.....	32	21	12
Assets, end of year.....	2,167	1,667	1,099
State accounts in unemployment trust fund:			
Receipts, total.....	2,351	2,126	1,794
Deposits ⁸	2,169	1,946	1,575
Interest.....	182	179	220
Withdrawals for benefit payments.....	2,366	2,797	2,926
Assets, end of year.....	6,673	6,688	7,360

¹ Contributions on earnings up to and including \$4,200 a year in 1958, and \$4,800 a year beginning Jan. 1, 1959. Contribution rate paid by employers and employees: 2¼ percent each beginning Jan. 1, 1957; 2½ percent each beginning Jan. 1, 1959; 3 percent each beginning Jan. 1, 1960. Contribution rate paid by self-employed: 3¾ percent beginning Jan. 1, 1957; 3¾ percent beginning Jan. 1, 1959; 4½ percent beginning Jan. 1, 1960. Includes deposits by States under voluntary agreements for coverage of State and local employees. Includes deductions to adjust for reimbursements to general funds of the Treasury of the estimated amount of employee taxes subject to refund on wages in excess of wage base.

² Includes old-age and survivors insurance and, beginning Jan. 1, 1957, disability insurance contributions.

³ Prior to 1957 tax could be paid in quarterly installments by employers of 8 or more; beginning Jan. 31, 1957, tax payable annually on preceding year's wages by employers of 4 or more. Rate is 3 percent on first \$3,000 a year of wages paid to each employee by subject employer. Because of credit offset of up to 90 percent of amount assessed that is permitted for contributions paid under State unemployment insurance laws (or for full contribution if reduced by State experience rating provisions), effective rate is 0.3 percent of such wages.

⁴ Contributions plus penalties and interest collected from employers and contributions from employees, reported by State agencies.

⁵ Contributions and deposits by States usually differ slightly, because of time lag in making deposits. Deposits in the State accounts also include loans from the Federal unemployment account of the unemployment trust fund and the distribution of Federal tax collections among the States under the Employment Security Administrative Financing Act of 1954.

⁶ For 1958 includes interest transferred from the railroad retirement account under the financial interchange provisions of the Railroad Retirement Act, as amended in 1951 and 1956.

⁷ Represents checks issued.

Source: Compiled from *Final Statement of Receipts and Expenditures of the United States Government*, other Treasury reports, and State agency reports.

Table 3.—Old-age, survivors, and disability insurance: Number of families and beneficiaries receiving benefits and average monthly benefit in current-payment status, by family group, end of December 1959 and November 1958¹

[In thousands, except for average benefit]

Family classification of beneficiaries	December 31, 1959			November 30, 1958 ¹		
	Number of families	Number of beneficiaries	Average monthly amount per family	Number of families	Number of beneficiaries	Average monthly amount per family
Total.....	10, 112.8	13, 703.9	-----	9, 189.5	12, 430.1	-----
Retired-worker families.....	7, 525.6	9, 931.6	-----	6, 920.7	9, 147.3	-----
Worker only.....	5, 320.7	5, 320.7	\$68.70	4, 871.8	4, 871.8	\$62.60
Male.....	2, 755.3	2, 755.3	78.00	2, 587.3	2, 587.3	70.70
Female.....	2, 565.4	2, 565.4	58.70	2, 284.5	2, 284.5	53.50
Worker and aged wife.....	2, 029.4	4, 058.8	121.60	1, 901.5	3, 803.0	111.20
Worker and young wife ².....	.8	1.6	118.60	.7	1.4	105.20
Worker and aged dependent husband.....	14.7	29.3	103.60	14.3	28.5	94.40
Worker and 1 or more children.....	44.8	102.5	118.90	30.0	71.1	109.80
Worker, wife aged 65 or over, and 1 or more children.....	13.0	39.9	157.30	10.3	32.5	140.30
Worker, young wife, and 1 or more children.....	102.1	378.3	151.70	92.0	338.7	132.50
Worker, husband, and 1 or more children.....	.2	.5	123.70	.1	.2	126.70
Survivor families.....	2, 252.8	3, 312.0	-----	2, 031.1	3, 014.9	-----
Aged widow ³	1, 380.1	1, 380.1	56.70	1, 224.0	1, 224.1	51.90
Aged widow and 1 or more children.....	11.4	23.6	111.20	6.9	14.2	105.50
Aged widow and 1 or 2 aged dependent parents.....	.1	.3	130.50	(⁴)	(⁴)	(⁴)
Aged dependent widower.....	1.9	1.9	53.40	1.6	1.6	48.90
Widower and 1 or more children.....	(⁵)	(⁵)	92.60	(⁵)	(⁵)	86.90
Widowed mother only ²	1.1	1.1	55.40	1.2	1.2	51.00
Widowed mother and 1 child.....	159.7	319.4	129.70	149.0	298.0	117.00
Widowed mother and 2 children ³	106.4	319.2	170.70	104.4	313.2	151.70
Widowed mother and 3 or more children ³	108.2	520.1	178.60	99.1	473.6	150.70
Widowed mother, 1 or more children, and 1 or 2 aged dependent parents.....	.4	1.6	219.40	(⁴)	(⁴)	(⁴)
Divorced wife and 1 or more children.....	.3	.9	166.80	.3	.9	141.40
1 child only ³	282.6	282.6	56.90	261.1	261.1	51.80
2 children.....	110.4	220.8	101.30	100.0	200.1	88.90
3 children.....	36.1	108.4	129.50	34.0	102.1	115.40
4 or more children.....	21.6	97.1	148.00	21.3	94.9	125.50
1 or more children and 1 or 2 aged dependent parents.....	.8	1.8	136.80	(⁴)	(⁴)	(⁴)
1 aged dependent parent.....	29.8	29.8	59.60	26.5	26.5	53.30
2 aged dependent parents.....	1.7	3.3	104.80	1.7	3.4	97.60
Disabled-worker families.....	334.4	460.4	-----	237.7	268.1	-----
Worker only.....	275.3	275.3	87.90	223.2	223.2	81.70
Male.....	206.3	206.3	91.90	175.6	175.6	84.70
Female.....	69.0	69.0	76.10	47.7	47.7	70.60
Worker and aged wife.....	17.4	34.8	135.90	4.8	9.7	128.80
Worker and young wife ².....	.2	.5	133.20	0	0	0
Worker and aged dependent husband.....	.2	.3	116.60	(⁴)	(⁴)	101.60
Worker and 1 or more children.....	11.2	28.2	153.90	2.3	5.6	146.70
Worker, wife aged 65 or over, and 1 or more children.....	(⁵)	.1	204.00	(⁵)	(⁵)	197.00
Worker, young wife, and 1 or more children.....	30.1	121.1	185.60	7.4	29.5	167.80

¹ To effect the benefit increases provided by the 1958 amendments, certain operations affecting statistical data on monthly benefits in current-payment status were suspended for December 1958; figures on benefits in current-payment status as of the end of December 1958 are therefore not available, but the corresponding data as of the end of November 1958 are shown in their place.

² Benefits to children were being withheld.

³ For November 30, 1958, includes a few cases where there is also a parent's benefit in current-payment status.

⁴ Not available. Data for families with parent's and other survivors' benefits in current-payment status on November 30, 1958 are included in other family groups; see footnote 3.

⁵ Less than 50.

Table 4.—Old-age, survivors, and disability insurance: Number and amount of monthly benefits in current-payment status at end of June 1960 and amount of benefit payments in fiscal year 1960, by State ¹

[In thousands]

Beneficiary's State of residence	Monthly benefits in current-payment status, June 30, 1960				Benefit payments in fiscal year 1960			
	Total		OASI ²		Total	OASI ²		DI ³
	Number	Monthly amount	Number	Monthly amount		Monthly benefits	Lump-sum death payments	
Total.....	14,261.8	\$889,863	13,740.3	\$851,791	\$10,797,995	\$10,103,919	\$165,772	\$528,304
Alabama.....	223.9	11,267	210.3	10,425	137,635	123,936	2,309	11,390
Alaska.....	5.8	336	5.6	322	4,219	3,945	84	190
Arizona.....	79.0	4,919	74.5	4,573	60,000	54,318	850	4,832
Arkansas.....	153.0	7,544	146.3	7,133	91,892	84,702	1,282	5,738
California.....	1,103.3	72,019	1,070.1	69,130	872,832	819,863	13,135	39,814
Colorado.....	217.4	13,410	211.1	14,891	87,450	83,053	1,146	3,251
Connecticut.....	31.6	2,039	30.4	1,950	180,983	176,518	3,166	7,239
Delaware.....	47.5	2,892	45.9	2,765	24,763	23,134	425	1,204
District of Columbia.....	454.8	29,197	436.9	27,863	35,251	32,791	718	1,742
Florida.....	234.4	11,946	220.2	11,057	353,224	330,430	4,273	18,521
Georgia.....	29.1	1,663	28.0	1,586	146,326	131,426	2,614	12,286
Hawaii.....	51.8	3,120	50.4	3,023	20,299	18,922	271	1,106
Idaho.....	816.8	54,950	791.7	52,947	37,702	35,872	518	1,312
Illinois.....	405.4	25,863	392.8	24,913	666,765	627,849	10,851	28,065
Indiana.....	256.3	15,715	250.8	15,312	313,419	295,499	4,603	13,317
Iowa.....	185.8	11,032	180.9	10,683	189,651	181,545	2,525	5,581
Kansas.....	261.6	13,789	246.6	12,919	133,442	126,692	1,955	4,795
Kentucky.....	174.0	9,276	163.6	8,625	167,921	153,432	2,431	12,058
Louisiana.....	90.5	5,894	90.1	5,668	113,542	102,529	2,085	8,928
Maine.....	187.7	11,675	180.8	11,132	71,838	67,213	1,026	3,199
Maryland.....	492.7	33,079	477.2	31,891	71,838	67,213	1,026	3,199
Massachusetts.....	607.1	41,637	586.8	39,983	142,321	132,341	2,716	7,264
Michigan.....	282.7	17,488	276.7	17,049	401,184	378,024	6,360	16,800
Minnesota.....	149.7	6,756	142.6	6,353	504,299	474,298	7,343	22,658
Mississippi.....	387.5	23,567	374.6	22,639	211,065	202,189	2,882	5,994
Missouri.....	56.1	3,559	54.5	3,442	82,325	75,493	1,317	5,515
Montana.....	126.8	7,557	124.2	7,374	283,466	268,442	4,089	12,935
Nebraska.....	126.8	7,557	124.2	7,374	43,010	40,835	616	1,559
Nevada.....	126.8	7,557	124.2	7,374	91,277	87,426	1,310	2,541

	15.1	987	14.5	942	.6	46	12,058	11,180	262	616
Nevada.....	15.1	3,870	59.5	3,742	1.7	128	46,921	44,358	772	1,791
New Hampshire.....	61.2	35,331	492.0	34,018	15.9	1,314	238,835	403,324	7,116	18,395
New Jersey.....	607.9	2,298	43.7	2,182	1.8	115	28,097	25,965	522	1,610
New Mexico.....	43.7	99,425	1,416.6	95,651	47.3	3,774	1,206,515	1,133,945	19,582	52,988
New York.....	1,463.8	15,285	302.6	14,245	16.9	1,040	186,857	1,169,287	3,232	14,338
North Carolina.....	302.6	2,821	46.7	2,770	.8	51	33,970	32,861	454	655
North Dakota.....	47.5	51,415	776.1	49,313	27.2	2,102	623,453	584,889	9,029	29,535
Ohio.....	173.8	10,744	167.3	9,377	6.5	465	119,458	111,306	1,742	5,046
Oklahoma.....	166.6	10,744	167.3	9,377	6.5	465	119,458	111,306	1,742	5,046
Oregon.....	173.8	10,744	167.3	9,377	6.5	465	119,458	111,306	1,742	5,046
Pennsylvania.....	1,019.7	67,593	978.9	64,431	40.7	3,162	124,873	123,093	1,734	43,894
Rhode Island.....	94.5	3,123	92.6	3,053	1.9	69	36,915	35,610	995	3,249
South Carolina.....	84.6	5,610	81.6	5,378	3.0	232	67,984	63,740	995	3,249
South Dakota.....	143.3	7,987	134.2	6,592	9.0	555	86,905	77,687	1,697	7,611
Tennessee.....	57.4	3,860	56.2	3,286	1.1	74	40,491	38,980	1,336	10,851
Texas.....	255.2	12,911	242.5	12,122	12.7	789	157,242	143,994	2,397	21,465
Utah.....	562.3	30,991	539.7	29,455	22.5	1,536	377,598	349,862	6,271	1,307
Vermont.....	53.4	3,337	52.2	3,243	1.3	94	40,390	38,515	568	1,322
Virgin Islands.....	38.1	2,274	36.7	2,181	1.4	94	27,561	25,859	380	1,322
Virginia.....	1.1	45	1.1	44	(³)	1	527	510	7	10
Washington.....	259.8	14,073	245.5	13,156	14.3	917	171,695	156,272	2,941	12,482
West Virginia.....	239.8	15,674	232.9	15,119	7.0	555	189,818	179,282	2,717	7,819
Wisconsin.....	180.4	10,294	165.6	9,382	14.8	912	125,705	111,494	1,682	12,529
Wyoming.....	357.5	22,847	348.0	22,113	9.5	733	276,206	262,219	3,924	10,153
Foreign.....	21.6	1,338	21.0	1,292	.6	46	16,208	15,337	252	619
	93.6	5,862	91.8	5,718	1.8	144	70,004	67,438	678	1,888

¹ Distribution by State estimated.² Benefits under the old-age and survivors insurance (OASI) part of the old-age, survivors, and disability insurance program are payable from the OASI trust fund to old-age insurance (retired-worker) beneficiaries and their dependents and to survivors

of deceased workers. Benefits under the disability insurance (DI) part of the program are payable from the DI trust fund to disability insurance (disabled-worker) beneficiaries and their dependents.

³ Less than 50.

Table 5.—Old-age, survivors, and disability insurance: Selected data on employers, taxable earnings, and contributions, by State, for specified periods

[In thousands, except for average taxable earnings. Includes data for State and local governments covered under elective provisions]

State	Employers reporting taxable wages July–September 1959 ¹	Calendar year 1957 ²			
		Workers with taxable earnings ³	Amount of taxable earnings ⁴		Amount of contributions ⁵
			Total	Average per worker	
Total	4, 140	71, 000	\$181, 421, 000	\$2, 560	\$7, 968, 700
Alabama	59	1, 070	2, 160, 000	2, 020	95, 100
Alaska	4	80	176, 000	2, 200	7, 800
Arizona	26	430	942, 000	2, 190	41, 400
Arkansas	36	530	900, 000	1, 700	38, 900
California	368	6, 030	15, 863, 000	2, 630	696, 800
Colorado	42	690	1, 488, 000	2, 160	64, 600
Connecticut	64	1, 180	3, 231, 000	2, 740	142, 800
Delaware	13	250	621, 000	2, 480	27, 500
District of Columbia	31	480	1, 012, 000	2, 110	45, 100
Florida	126	1, 810	3, 423, 000	1, 890	149, 700
Georgia	85	1, 420	2, 706, 000	1, 910	119, 100
Hawaii	11	200	477, 000	2, 380	21, 000
Idaho	15	260	546, 000	2, 100	23, 300
Illinois	227	4, 560	12, 169, 000	2, 670	534, 400
Indiana	92	1, 950	5, 079, 000	2, 600	223, 300
Iowa	67	1, 110	2, 505, 000	2, 260	105, 400
Kansas	51	870	1, 881, 000	2, 160	81, 100
Kentucky	60	980	1, 994, 000	2, 030	86, 300
Louisiana	64	1, 060	2, 213, 000	2, 090	97, 300
Maine	25	400	776, 000	1, 940	34, 000
Maryland	70	1, 200	2, 821, 000	2, 350	124, 500
Massachusetts	122	2, 270	5, 647, 000	2, 490	249, 900
Michigan	154	3, 310	9, 377, 000	2, 830	414, 500
Minnesota	73	1, 310	3, 111, 000	2, 370	134, 000
Mississippi	37	610	999, 000	1, 640	43, 500
Missouri	108	1, 870	4, 314, 000	2, 310	188, 600
Montana	17	280	632, 000	2, 260	27, 100
Nebraska	35	620	1, 232, 000	1, 990	52, 300
Nevada	7	130	280, 000	2, 150	12, 300
New Hampshire	17	280	590, 000	2, 110	25, 900
New Jersey	152	2, 690	7, 085, 000	2, 630	312, 600
New Mexico	19	300	562, 000	1, 870	24, 500
New York	496	8, 210	21, 800, 000	2, 660	962, 200
North Carolina	94	1, 650	3, 218, 000	1, 950	140, 900
North Dakota	14	240	468, 000	1, 950	19, 000
Ohio	203	4, 030	10, 991, 000	2, 730	484, 700
Oklahoma	52	870	1, 803, 000	2, 070	78, 400
Oregon	41	740	1, 760, 000	2, 380	77, 000
Pennsylvania	249	4, 810	12, 556, 000	2, 610	554, 000
Puerto Rico	18	460	452, 000	980	19, 800
Rhode Island	21	380	886, 000	2, 330	39, 100
South Carolina	46	800	1, 520, 000	1, 900	66, 900
South Dakota	16	240	477, 000	1, 990	19, 600
Tennessee	75	1, 270	2, 513, 000	1, 980	110, 100
Texas	223	3, 540	7, 558, 000	2, 140	330, 900
Utah	17	340	736, 000	2, 160	32, 300
Vermont	11	150	314, 000	2, 090	13, 700
Virginia	86	1, 380	2, 811, 000	2, 040	123, 600
Virgin Islands	1	10	13, 000	1, 300	500
Washington	65	1, 160	2, 854, 000	2, 460	124, 900
West Virginia	37	690	1, 645, 000	2, 380	72, 700
Wisconsin	89	1, 580	3, 955, 000	2, 500	171, 900
Wyoming	9	150	298, 000	1, 990	12, 900
Foreign ⁶		90	214, 000	2, 380	9, 500
Ocean-borne vessels		140	395, 000	2, 820	17, 800
Uniformed services (on basic pay)		3, 510	5, 372, 000	1, 530	241, 700

¹ State data represent number of employers reporting taxable wages by the State of their reporting headquarters. An employer is a legal entity such as a corporation, partnership, or single ownership for which a single tax return is filed. Excludes agricultural employers.² Includes self-employment.³ State data represent workers employed in the State at some time during the year. Workers employed in more than 1 State are counted once in each of the States in which employed.⁴ Represents taxable earnings in the State in which workers were employed. Averages are rounded to nearest \$10.⁵ Contributions based on a worker's annual taxable earnings, not more than \$4,200 in 1957. Contribution rate was 2½ percent each for employees and employers, and 3¾ percent for self-employed persons.⁶ Refers to employment of United States citizens outside listed States or other areas by American employers and their foreign subsidiaries.

Table 6.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings for specified periods, 1958–60

[In thousands, except for average monthly benefit and average taxable earnings; corrected to Sept. 29, 1960]

Item	1960	1959	1958
	Fiscal year		
Benefits in current-payment status (end of period):			
Number (OASI and DI) ¹	14,261.8	13,181.4	11,905.3
Number (OASI).....	13,740.3	12,820.2	11,704.9
Number (DI).....	521.6	361.2	200.4
Old-age (retired-worker).....	7,813.0	7,295.6	6,638.5
Disability (disabled-worker).....	370.8	275.2	200.4
Wife's or husband's (OASI and DI).....	2,279.9	2,141.8	1,947.4
Wife's or husband's (OASI).....	2,223.5	2,108.5	1,917.4
Wife's or husband's (DI).....	56.4	33.2	.....
Child's (OASI and DI) ²	1,903.5	1,747.7	1,571.9
Child's (OASI) ²	1,809.1	1,694.8	1,571.9
Child's (DI) ²	94.4	52.8	.....
Widow's or widower's.....	1,471.3	1,322.0	1,172.8
Mother's.....	387.9	366.5	344.9
Parent's.....	35.5	32.7	29.4
Total monthly amount (OASI and DI).....	\$889,863	\$805,545	\$659,684
Total monthly amount (OASI).....	\$851,791	\$778,404	\$644,773
Total monthly amount (DI).....	\$38,071	\$27,141	\$14,911
Old-age (retired-worker).....	\$575,295	\$526,701	\$436,244
Disability (disabled-worker).....	\$33,123	\$24,324	\$14,911
Wife's or husband's (OASI and DI).....	\$87,701	\$81,295	\$67,821
Wife's or husband's (OASI).....	\$85,676	\$80,096	\$67,821
Wife's or husband's (DI).....	\$2,025	\$1,199	.....
Child's (OASI and DI) ²	\$84,789	\$76,209	\$61,471
Child's (OASI) ²	\$81,865	\$74,591	\$61,471
Child's (DI) ²	\$2,924	\$1,618	.....
Widow's or widower's.....	\$84,229	\$74,359	\$60,457
Mother's.....	\$22,609	\$20,760	\$17,241
Parent's.....	\$2,117	\$1,896	\$1,538
Average monthly amount:			
Old-age (retired-worker).....	\$73.63	\$72.19	\$65.71
Disability (disabled-worker).....	\$89.33	\$88.40	\$74.42
Wife's or husband's (OASI and DI).....	\$38.47	\$37.96	\$34.83
Wife's or husband's (OASI).....	\$38.53	\$37.99	\$34.83
Wife's or husband's (DI).....	\$35.92	\$36.09	.....
Child's (OASI and DI) ²	\$44.54	\$43.61	\$39.11
Child's (OASI) ²	\$45.25	\$44.01	\$39.11
Child's (DI) ²	\$30.98	\$30.62	.....
Widow's or widower's.....	\$57.25	\$56.25	\$51.55
Mother's.....	\$58.29	\$56.65	\$49.99
Parent's.....	\$59.67	\$58.02	\$52.34
Benefit payments during period:			
Monthly benefits (OASI and DI).....	\$10,632,223	\$9,238,753	\$7,900,638
Monthly benefits (OASI).....	\$10,103,919	\$8,899,522	\$7,732,218
Monthly benefits (DI).....	\$528,304	\$339,231	\$168,420
Old-age (retired-worker).....	\$6,803,466	\$6,041,417	\$5,245,777
Disability (disabled-worker).....	\$450,114	\$311,105	\$168,420
Supplementary (OASI and DI).....	\$1,183,515	\$1,007,142	\$860,488
Supplementary (OASI).....	\$1,105,325	\$979,016	\$860,488
Supplementary (DI).....	\$78,190	\$28,126	.....
Survivor.....	\$2,195,128	\$1,879,089	\$1,625,953
Lump-sum death payments.....	\$165,772	\$149,625	\$142,714
Insured workers (midpoint of period—Jan. 1): ³			
Fully insured.....	.....	.....	.....
Currently but not fully insured.....	.....	.....	.....
Estimated number of employers reporting taxable wages, 1st quarter of fiscal year.....	4 4,140	4 4,090	4 4,060
	Calendar year		
Estimated number of workers with taxable earnings.....	75,000	73,000	70,000
Estimated amount of taxable earnings.....	\$213,000,000	\$202,000,000	\$181,000,000
Average taxable earnings ⁴	\$2,840	\$2,770	\$2,590

¹ Benefits under the old-age and survivors insurance (OASI) parts of the old-age, survivors, and disability insurance program are payable from the OASI trust fund to old-age insurance (retired-worker) beneficiaries and their dependents and to survivors of deceased workers. Benefits under the disability insurance (DI) part of the program are payable from the DI trust fund to disability insurance (disabled-worker) beneficiaries and their dependents.

² Includes benefits payable to disabled persons aged 18 or over—dependent children of disabled, deceased, or retired workers—whose disability began before age 18.

³ Estimates of insured workers have not been adjusted to reflect changes in insurance status arising from: (1) provisions that coordinate the old-age, survivors, and disability insurance and railroad retirement programs and (2) wage credits for military service. Estimates are only partially adjusted to eliminate duplicate count of persons with taxable earnings reported on more than 1 account number.

⁴ Excludes agricultural employers.

⁵ Rounded to nearest \$10.

Table 7.—Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1960, and total payments to recipients, by program and State, fiscal year 1960

[Includes vendor payments for medical care and cases receiving only such payments; data corrected to October 15, 1960]

State	Old-age assistance				Aid to dependent children					Aid to the blind			Aid to the permanently and totally disabled		
	Num-ber of recipi-ents, June	Payments to recipients		Number of recipients, June			Payments to recipients		Num-ber of recipi-ents, June	Payments to recipients		Num-ber of recipi-ents, June	Payments to recipients		
		Aver-age pay-ment, June	Total, fiscal year (in thou-sands)	Fam-ilies	Total : Chil-dren	Aver-age pay-ment per family, June	Aver-age pay-ment per re-cipient, June	Total, fiscal year (in thou-sands)							
Fiscal year:															
1958.....	2,460,299	\$61.38	\$1,798,374	728,255	2,733,146	2,092,216	\$102.39	\$27.28	\$815,196	108,336	\$66.72	\$85,397	312,585	\$60.69	\$212,209
1959.....	2,419,885	64.76	1,858,004	777,632	2,929,986	2,246,965	106.94	28.38	956,380	109,445	69.04	89,066	339,214	63.37	244,664
1960.....	2,358,600	67.90	1,894,639	794,435	3,025,483	2,330,202	110.75	29.08	1,021,097	107,979	72.81	92,309	362,832	65.74	271,208
Alabama.....	98,937	53.03	58,163	21,374	85,686	67,058	38.07	9.50	8,858	1,609	39.34	732	12,248	36.13	5,197
Alaska.....	1,437	64.64	1,106	4,228	3,167	2,433	121.02	32.45	1,552	86	71.85	86	724	843	724
Arizona.....	13,962	61.66	10,351	29,284	22,433	22,433	121.02	30.37	10,103	843	72.25	843	724	1,327	724
Arkansas.....	55,695	52.94	33,369	27,035	27,035	21,214	61.99	16.28	5,178	2,027	56.59	1,327	7,201	39.45	3,181
California.....	255,071	90.37	270,869	75,539	268,457	210,367	162.83	45.82	141,168	13,750	107.18	17,647	9,129	93.52	8,640
Colorado.....	80,865	98.65	60,767	28,435	22,312	128.21	33.11	10,591	284	81.45	270	5,610	2,170	128.62	3,445
Connecticut.....	14,433	109.11	19,466	7,445	25,115	18,846	155.56	46.11	14,145	294	96.82	387	3,663	66.29	291
Delaware.....	1,293	50.00	802	4,798	6,220	4,796	87.40	22.93	1,650	248	71.58	214	2,779	75.60	2,415
District of Columbia.....	3,098	65.10	2,434	4,578	20,434	16,174	150.24	33.66	7,424	225	70.16	192	2,779	75.60	2,415
Florida.....	69,519	56.87	46,163	24,987	91,249	71,520	61.04	16.72	19,270	2,526	61.46	1,830	9,212	63.89	6,505
Georgia.....	96,459	47.29	55,055	15,183	56,387	43,666	88.00	23.70	16,050	3,567	52.51	2,226	21,510	51.84	12,597
Guam.....	69	24.97	16	98	552	461	66.12	11.74	70	4	(?)	1	43	(?)	11
Hawaii.....	1,428	64.16	1,091	2,405	9,357	7,448	130.65	33.58	3,876	80	67.18	68	1,017	77.67	959
Idaho.....	7,307	68.77	5,838	2,133	7,891	5,817	149.99	40.54	3,560	167	72.98	144	1,035	73.11	854
Illinois.....	73,288	73.88	64,922	35,564	148,900	115,355	163.66	39.09	67,746	3,001	82.11	2,948	18,406	82.81	17,497
Indiana.....	27,502	62.96	20,846	11,501	42,423	32,096	102.43	27.77	13,988	1,824	73.96	1,619	1,619	82.81	17,497
Iowa.....	34,255	81.40	31,469	9,169	33,892	25,577	138.10	37.36	13,845	1,433	97.40	1,540	372	82.20	3104
Kansas.....	28,404	86.01	27,345	6,161	23,277	18,267	139.22	36.85	9,877	602	82.50	594	4,224	84.39	4,206
Kentucky.....	56,116	46.04	30,419	20,226	72,642	54,643	77.40	21.55	18,225	2,424	44.60	1,499	7,647	45.71	4,201
Louisiana.....	125,095	71.56	102,337	25,114	102,962	79,951	97.78	23.85	27,427	2,750	81.83	2,503	16,498	56.34	10,434
Maine.....	11,715	67.77	9,233	5,788	20,443	15,109	97.06	27.48	6,625	440	64.53	356	2,144	68.46	1,624
Maryland.....	9,414	61.70	6,889	8,610	35,913	28,207	122.88	20.40	12,727	456	64.74	349	6,180	65.14	4,652

Massachusetts.....	78,646	96,181	14,499	48,944	36,706	147,05	43,56	25,868	2,150	125.73	3,020	10,248	121.89	14,454
Michigan.....	61,183	53,505	26,747	85,465	70,207	130.23	36.49	41,173	1,707	80.04	1,665	4,745	85.68	4,552
Minnesota.....	40,743	49,386	10,123	34,789	27,081	156.70	43.31	17,003	1,077	95.33	1,286	2,423	61.11	1,696
Mississippi.....	79,803	28,652	19,902	77,033	60,414	41.08	10.61	9,504	6,414	38.65	2,906	11,683	32.04	3,745
Missouri.....	83,117	83,117	26,905	102,383	77,598	87.28	22.94	28,320	5,079	65.00	4,004	15,341	62.03	11,824
Montana.....	6,881	5,387	7,008	6,506	5,506	123.67	33.28	2,770	349	76.20	314	1,280	71.73	1,179
Nebraska.....	14,910	12,778	2,791	10,668	8,183	113.67	29.74	3,725	841	88.62	913	1,820	71.68	1,450
Nevada.....	2,900	2,207	1,146	3,871	3,019	89.25	26.42	1,155	184	99.62	211			
New Hampshire.....	4,846	4,549	1,061	4,066	3,075	155.42	40.56	1,831	247	81.25	234	427	93.45	450
New Jersey.....	18,911	19,677	14,672	51,192	38,820	161.40	46.26	23,774	935	85.56	949	6,825	93.83	7,052
New Mexico.....	10,823	8,539	7,774	30,388	23,447	123.08	31.64	10,428	380	62.83	290	2,446	66.36	1,877
New York.....	82,209	105,345	66,748	264,718	200,402	168.21	42.41	132,835	3,890	109.08	5,155	36,724	103.97	45,361
North Carolina.....	48,349	24,342	26,846	103,448	82,204	77.49	19.54	24,247	5,172	55.17	3,250	18,772	48.93	10,425
North Dakota.....	7,239	85.33	1,846	6,920	5,386	143.96	38.40	3,131	98	72.29	90	1,169	91.06	1,282
Ohio.....	89,290	76,083	26,274	104,623	79,951	118.62	29.70	34,599	3,515	73.59	2,878	12,180	73.47	9,497
Oklahoma.....	80,491	84,081	18,111	64,243	48,802	111.90	31.55	23,529	1,867	97.46	2,113	9,337	88.80	9,545
Oregon.....	10,916	10,045	3,899	21,151	16,001	135.32	37.74	9,013	2,865	82.28	289	4,882	81.87	4,998
Pennsylvania.....	50,010	41,191	48,044	189,637	144,405	124.11	31.44	71,649	17,721	74.09	14,794	17,496	60.82	12,181
Puerto Rico.....	39,215	3,902	56,396	217,178	172,673	14.84	3.85	9,765	1,904	8.27	186	22,399	8.75	2,306
Rhode Island.....	6,736	78.37	4,406	16,050	12,099	131.36	36.06	6,938	1,123	75.39	108	2,850	83.88	2,772
South Carolina.....	32,201	15,606	9,527	37,927	29,949	61.16	15.36	6,393	1,707	46.13	882	7,785	47.87	3,782
South Dakota.....	8,846	61.63	3,162	10,947	8,216	107.01	30.91	3,974	1,666	60.99	119	1,155	63.97	842
Tennessee.....	54,635	28,427	22,065	81,592	61,687	70.26	19.00	18,156	2,767	47.36	1,590	9,142	47.03	4,696
Texas.....	221,706	140,666	20,158	83,826	64,000	71.66	17.23	18,466	6,359	58.37	4,415	6,243	54.30	3,734
Utah.....	7,866	6,528	3,482	12,583	9,399	139.80	38.68	5,361	200	71.42	171	2,351	77.78	2,040
Vermont.....	4,045	1,271	4,532	3,396	3,396	109.05	30.58	1,586	137	62.80	98	907	64.35	829
Virgin Islands.....	561	162	268	922	708	84.21	14.01	1,133	19	(2)	6	107	26.64	34
Virginia.....	14,529	7,654	9,478	38,015	29,933	84.18	20.99	9,273	1,232	54.19	779	6,305	49.88	3,600
Washington.....	48,853	51,640	11,722	40,188	31,347	159.51	46.53	21,473	793	95.57	834	6,811	97.80	7,716
West Virginia.....	19,373	8,658	20,572	80,285	62,687	95.30	24.42	22,363	1,015	40.71	493	7,870	41.57	3,454
Wisconsin.....	35,239	34,040	9,492	34,548	26,386	162.62	44.34	16,432	969	86.66	974	3,219	104.09	2,785
Wyoming.....	3,252	2,843	717	2,561	1,951	130.69	36.59	1,175	65	72.25	58	522	70.61	456

¹ Includes as recipients the children and 1 parent or other adult relative in families in which the requirements of at least 1 such adult were considered in determining the amount of assistance.
² Average payment not computed on base of fewer than 50 recipients.
³ Represents data for January-June 1960.

Mississippi.....	38,206	24,093	8,547	2,318	3,338	30,457	78.2	10,715	78.7	3,067	75.2	4,326	75.8
Montana.....	89,489	57,292	21,932	2,331	7,934	86,779	66.3	30,260	72.5	4,360	54.0	12,043	65.6
Nebraska.....	6,578	3,722	1,846	503	8,804	3,505	65.1	3,080	61.8	364	58.2	1,324	59.0
Nevada.....	13,087	8,689	2,852	215	1,023	13,728	65.3	4,088	72.4	972	53.6	1,631	63.3
Nevada.....	2,426	1,392	8,916	119		2,399	58.4	1,396	66.9	243			
New Hampshire.....	4,124	2,642	1,091	134	298	4,890	57.1	2,027	54.5	254	54.4	528	48.7
New Jersey.....	25,294	9,579	11,152	545	4,018	21,662	47.3	25,861	44.8	1,103	49.1	8,393	44.4
New Mexico.....	15,972	6,272	8,031	229	1,440	9,131	69.8	11,271	72.7	314	72.7	2,090	68.9
New York.....	144,013	47,078	73,350	2,350	117,514	25,622	40.7	153,867	48.5	6,011	39.8	52,604	41.9
North Carolina.....	51,279	19,171	28,195	2,604	8,199	25,622	74.6	26,092	77.9	3,658	70.8	11,207	72.8
North Dakota.....	6,961	4,307	1,917	58	679	8,141	53.4	3,415	57.0	103	59.5	1,420	49.0
Ohio.....	76,800	44,284	24,468	1,950	6,099	80,971	56.4	37,762	66.5	3,268	60.0	10,577	58.2
Oklahoma.....	75,540	51,871	17,214	1,073	5,382	86,676	60.0	24,707	70.7	2,188	49.9	10,137	53.8
Oregon.....	17,936	9,296	5,677	144	2,820	17,668	54.3	10,876	51.8	291	50.5	5,590	49.5
Pennsylvania.....	85,941	25,191	48,610	3,196	7,944	44,249	59.6	78,782	63.3	15,446	21.4	13,960	58.2
Puerto Rico.....	8,500	2,032	5,089	101	1,279	4,410	47.1	10,904	46.0	223	47.1	2,755	47.1
Rhode Island.....	9,421	3,397	4,248	65	1,511	6,848	53.3	7,327	56.4	121	54.3	3,072	50.1
South Carolina.....	21,428	12,263	5,453	639	3,053	16,547	74.8	6,986	79.0	944	73.7	4,135	73.0
South Dakota.....	8,475	4,772	2,957	90	655	6,997	71.0	4,331	69.7	132	70.2	1,932	70.0
Tennessee.....	42,898	22,363	15,566	1,240	3,730	30,219	74.1	19,687	78.4	1,679	73.3	5,153	72.6
Texas.....	124,697	102,807	15,924	3,199	2,708	145,087	71.3	20,047	79.7	4,600	70.2	4,215	69.3
Utah.....	9,476	4,380	3,649	116	1,331	6,853	67.8	5,850	61.1	179	65.0	2,145	61.7
Vermont.....	4,719	2,910	1,268	67	474	4,284	71.3	1,734	71.8	105	71.0	679	70.7
Virgin Islands.....	206	100	83	4	19	201	50.0	183	50.0	8	50.0	42	50.0
Virginia.....	17,162	6,012	7,657	629	2,863	8,379	73.3	10,358	75.5	879	70.8	4,089	71.3
Washington.....	38,905	25,669	9,536	376	3,325	54,173	48.4	22,970	44.5	882	43.6	8,186	42.3
West Virginia.....	27,649	6,829	17,705	401	2,714	9,128	75.8	23,168	76.3	524	74.6	3,775	73.9
Wisconsin.....	29,368	18,910	8,542	546	1,368	36,844	53.2	18,061	48.6	1,065	51.8	3,058	42.0
Wyoming.....	2,832	1,764	762	36	290	3,070	58.6	1,325	55.5	62	58.0	495	58.0

1 Based on cash advanced for the year; may differ slightly from fiscal-year expenditures from Federal funds reported by States.
2 Represents data for January-June 1960.

Table 9.—Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, by program and State, fiscal year 1960^{1 2}

[In thousands]

State	Maternal and child health services	Crippled children's services	Child welfare services
United States.....	\$17,442.5	\$17,088.1	\$12,902.0
Alabama.....	544.9	546.4	349.7
Alaska.....	138.6	196.6	60.2
Arizona.....	161.0	-----	125.3
Arkansas.....	282.6	260.1	234.9
California.....	896.6	950.0	589.9
Colorado.....	355.8	214.4	147.7
Connecticut.....	259.3	232.7	118.2
Delaware.....	106.3	99.2	64.2
District of Columbia.....	222.9	200.2	70.3
Florida.....	520.7	342.8	287.3
Georgia.....	491.9	538.2	391.2
Hawaii.....	156.2	148.4	81.8
Idaho.....	155.5	115.4	77.0
Illinois.....	462.3	592.7	437.8
Indiana.....	336.7	368.2	314.9
Iowa.....	251.9	356.2	260.6
Kansas.....	202.8	245.8	183.6
Kentucky.....	370.0	478.0	350.3
Louisiana.....	370.6	405.2	288.4
Maine.....	146.5	120.7	106.0
Maryland.....	429.2	313.4	192.5
Massachusetts.....	371.3	342.7	150.5
Michigan.....	663.3	615.5	458.3
Minnesota.....	388.0	546.4	289.4
Mississippi.....	392.0	398.4	315.3
Missouri.....	348.1	331.8	280.8
Montana.....	129.0	170.8	101.6
Nebraska.....	130.9	91.8	149.0
Nevada.....	160.6	90.9	43.0
New Hampshire.....	102.2	105.2	75.0
New Jersey.....	253.2	247.8	211.6
New Mexico.....	198.6	151.2	114.0
New York.....	773.8	638.9	626.5
North Carolina.....	695.1	643.2	539.5
North Dakota.....	113.4	111.0	114.8
Ohio.....	670.8	548.8	492.3
Oklahoma.....	249.7	258.8	211.5
Oregon.....	160.8	191.1	164.3
Pennsylvania.....	830.7	714.9	594.4
Rhode Island.....	155.4	110.0	85.6
South Carolina.....	369.6	384.7	314.2
South Dakota.....	56.2	105.7	110.5
Tennessee.....	531.7	457.8	358.4
Texas.....	715.5	953.3	653.3
Utah.....	73.7	96.8	108.0
Vermont.....	109.7	97.0	75.8
Virginia.....	488.4	461.4	365.5
Washington.....	269.7	206.5	192.2
West Virginia.....	230.8	278.9	252.9
Wisconsin.....	322.5	361.0	301.1
Wyoming.....	102.6	92.8	65.0
Guam.....	58.3	53.1	-----
Puerto Rico.....	371.6	416.3	310.8
Virgin Islands.....	93.0	89.0	45.1

¹ On checks issued basis.

² Includes \$1,215,200 derived from \$1.5 million supplemental appropriation to be used only for children with congenital heart diseases to remain available until June 30, 1960.

Table 10.—Federal credit unions: Assets and liabilities, Dec. 31, 1959, and Dec. 31, 1958

Assets and liabilities	Amount			Percentage distribution	
	Dec. 31, 1959	Dec. 31, 1958	Change during year	Dec. 31, 1959	Dec. 31, 1958
Number of operating Federal credit unions.....	9,447	9,030	417	-----	-----
Total assets.....	\$2,352,813,400	\$2,034,865,575	\$317,947,825	100.0	100.0
Loans to members.....	1,666,525,512	1,379,723,727	286,801,785	70.9	67.8
Cash.....	137,677,971	154,257,791	-16,579,820	5.8	7.6
United States bonds.....	110,328,752	94,897,483	15,431,269	4.7	4.7
Savings and loan shares.....	363,003,574	347,411,329	15,592,245	15.5	17.1
Loans to other credit unions.....	50,217,364	35,073,948	15,143,416	2.1	1.7
Land and buildings.....	7,778,138	6,084,555	1,693,583	.3	.3
Other assets.....	17,282,089	17,416,742	-134,653	.7	.8
Total liabilities.....	2,352,813,400	2,034,865,575	317,947,825	100.0	100.0
Notes payable.....	58,427,188	37,481,165	20,946,023	2.5	1.8
Shares.....	2,075,055,019	1,812,017,273	263,037,746	88.2	89.1
Regular reserve.....	91,733,369	75,810,826	15,962,543	3.9	3.7
Special reserve for delinquent loans.....	4,674,782	4,579,416	95,366	.2	.2
Other reserves ¹	4,629,088	3,881,182	747,906	.2	.2
Undivided earnings.....	106,259,883	93,922,039	12,337,844	4.5	4.6
Other liabilities.....	11,994,071	7,173,674	4,820,397	.5	.4

¹ Reserve for contingencies and special reserve for losses.

Table 11.—Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding, Dec. 31, 1934–59 ¹

Year	Number of operating Federal credit unions	Number of members	Assets	Shares	Loans outstanding
1934 ²	39	3,240	\$23,300	\$23,100	\$15,400
1935.....	772	119,420	2,372,100	2,228,400	1,834,200
1936.....	1,751	309,700	9,158,100	9,510,900	7,343,800
1937.....	2,313	483,920	19,264,700	17,649,700	15,695,300
1938.....	2,760	632,050	29,629,000	26,876,100	23,830,100
1939.....	3,182	850,770	47,810,600	43,326,900	37,673,000
1940.....	3,756	1,127,940	72,530,200	65,805,800	55,818,300
1941.....	4,228	1,408,880	106,052,400	97,208,900	69,484,700
1942.....	4,145	1,356,940	119,591,400	109,822,200	43,052,500
1943.....	3,938	1,311,620	127,329,200	117,339,100	35,376,200
1944.....	3,815	1,306,000	144,365,400	133,677,400	34,438,400
1945.....	3,757	1,216,625	153,103,120	140,613,962	35,155,414
1946.....	3,761	1,302,132	173,166,459	159,718,040	56,800,937
1947.....	3,845	1,445,915	210,375,571	192,410,043	91,372,197
1948.....	4,058	1,628,339	258,411,736	235,008,368	137,642,327
1949.....	4,495	1,819,606	316,362,504	285,000,934	186,218,022
1950.....	4,984	2,126,823	405,834,976	361,924,778	263,735,838
1951.....	5,398	2,463,898	504,714,580	457,402,124	299,755,775
1952.....	5,925	2,853,241	662,408,869	597,374,117	415,062,315
1953.....	6,578	3,255,422	854,232,007	767,571,092	573,973,529
1954.....	7,227	3,598,790	1,033,179,042	931,407,456	681,970,336
1955.....	7,806	4,032,220	1,267,427,045	1,135,164,876	863,042,049
1956.....	8,350	4,502,210	1,529,201,927	1,366,258,073	1,049,188,549
1957.....	8,735	4,897,689	1,788,768,332	1,589,190,585	1,257,319,328
1958.....	9,030	5,209,912	2,034,865,575	1,812,017,273	1,379,723,727
1959.....	9,447	5,643,248	2,352,813,400	2,075,055,019	1,666,525,512

¹ Data for 1934–44 on membership, assets, shares, and loans outstanding are partly estimated.

² First charter approved October 1, 1934.

Public Health Service

Health of the Nation

THE HEALTH of the American people continued at a high level during 1960. The utmost vigilance, however, is required not only to maintain personal and community health at this relatively high degree but also to meet the needs that stem from our rapidly changing and increasingly complex society.

In this latter respect, problems which have always been serious have become intensified. This is particularly true in the fields of water and air pollution, sewage treatment requirements, and the challenges presented by the Atomic Age.

Paradoxically, progress in solving old problems has given rise to a multitude of more resistant new problems. For example, medical science and public health action, by the very act of saving lives, have prolonged the span of life and, thus, have contributed to the steady growth in the number of aged persons in our population. In the years preceding the conquest of the lethal diseases of childhood, a large proportion of aged persons now living would not have survived the first decade of life. Now, in the closing years of their lives, they present a complex pattern of chronic disease problems that have usurped the erstwhile supremacy of the infectious diseases.

Although these and other conditions constitute health portents of no minor moment for the future, there is every reason to expect that public health and medical science, if consistently sanctioned by the people, strengthened by voluntary groups of health-minded citizens, and responsively supported by funds and legislation, will be enabled to sustain currently favorable health trends and project them into the future.

HEALTH RECORD

In recent years, reported births, sickness, and death rates have presented markedly changed conditions for the two extremes of life. Great gains in life expectancy for the young have been accompanied by increases in death rates among aged persons.

The death rates for infants¹ under 1 year and for mothers in childbirth, for example, have declined in the last decade. The infant death rate dropped 10 percent, from 29.2 deaths per 1,000 live births in 1950 to 26.4 in 1959. The maternal mortality rate for 1959 was 3.7 per 10,000 live births compared with 8.3 in 1950—a 55 percent drop.

Deaths from childhood diseases declined sharply. Scarlet fever and streptococcal sore throat, diphtheria, whooping cough, and measles caused about 5 deaths for every 100,000 youngsters under 15 years of age in 1950. In 1959, however, these diseases were responsible for only about 1 death per 100,000 population in this age group.

The death rates for a number of infectious diseases which affect the young and the old alike have also dropped since 1950. Thus, the death rate for tuberculosis was 22.5 per 100,000 population in 1950, compared with 7.1 in 1958, and 6.5 in 1959. There have also been proportionately fewer deaths from syphilis, particularly among infants.

The seasonal influences of influenza were mild in 1959 compared with 1958. The influenza and pneumonia death rate (except for pneumonia of the newborn) dropped from 33.2 per 100,000 population in 1958 to 31.2 in 1959. A similar decline was noted in the number of deaths in older people with cardiovascular disease.

Death rates for suicide, homicide, and accidents have decreased since 1950. After increasing to age 65, the suicide rate levels off. The homicide rate is highest among young adults. Most fatal accidents, except for motor-vehicle accidents, tend to occur at the two ends of life. No definite trend has been apparent for motor-vehicle accidents, but the death rate has remained at a high level. It was 23.1 per 100,000 in 1950 and 21.5 in 1959. For all other accidents, however, the death rate dropped from 37.5 in 1950 to 30.7 in 1959.

In contrast to the generally favorable trend of the infectious diseases, the chronic maladies characteristic of the latter part of life continued to exact a heavy toll of lives. Together, diseases of the heart and blood vessels and cancer accounted for 70 percent of all deaths in 1959. The death rate for the major cardiovascular-renal diseases was 516.2 per 100,000 in 1959, compared with 510.8 in 1950. The 1959 cancer death rate was 147.4, substantially higher than the 139.8 rate of 1950.

The trend in the Nation's health is summed up in the life expectancy figure. Over the last few years this indicator has changed

¹ All vital data are for calendar years. The marriage, divorce, and death figures for 1959 are final. Other figures are provisional.

only slightly, in contrast to the rapid increase in life expectancy in the first half of the century.

The average length of life for the entire population increased from 66.8 years in 1947 to 69.6 years in 1954, but the figure has remained practically unchanged since then. It was 69.6 years in 1956 and 69.4 years in 1958, and a provisional table for 1959, the latest year for which average length of life has been calculated, yields a figure of 69.7 years. The average length of life in 1958 was 67.2 for white males, 73.7 for white females, 60.6 for nonwhite males, and 65.5 for nonwhite females. The average length of life for women has been increasing more rapidly than for men, and the gap between the white and nonwhite population has continued to decrease.

BIRTHS, MARRIAGES, AND DIVORCES

The Nation's birth rate has remained at a high level since the end of World War II, while the death rate has declined slightly. In 1959 there were 4,292,000 live births in the United States—0.9 percent above the total for 1958 and close to the past record (4,308,000) in 1957. These figures include an adjustment for underregistration. The crude birth rate was 24.3 per 1,000 population, compared with rates of 24.6 and 25.3 for 1958 and 1957, respectively. Since there were 9.4 registered deaths per 1,000 people in 1959, the rate of natural increase (the excess of the birth rate over the death rate) came to 14.9 per 1,000 population—nearly the same as the 1958 rate of 15.1. The 1959 figures include Alaska for the first time.

The estimated number of marriages performed in 1959 was 1,414,000 or 3.0 percent more than the figure for 1958. The rate per 1,000 population was 8.5, compared with 8.4 in 1958.

The estimated number of divorces, including reported annulments, granted in 1959 was 395,000, 7.3 percent above the figure for 1958. The divorce rate per 1,000 population was 2.2, compared with a rate of 2.1 in 1958.

Funds and Personnel

In 1960, the total funds available to the Public Health Service amounted to \$1,013.6 million (see table 1, page 172). Of this amount, about \$840.8 million were appropriations and authorizations. The balance was made up of repayments for services given other agencies and of unobligated balances from previous years.

Approximately 70 percent of the total funds available was disbursed to the States and to agencies and institutions outside the Federal Government for disease control, general health services, construction of health facilities, environmental sanitation installations, and for medical and dental research. The remainder was expended to support

Public Health Service hospitals, foreign and interstate quarantine activities, Indian health services, and the direct services specified in Federal law as responsibilities of the Service.

The Public Health Service had 26,430 full-time employees at the close of fiscal year 1960. The total staff included 1,666 members of the regular Commissioned Corps of the Service, 2,034 members of the Reserve Corps on active duty, 116 members of the Commissioned Reserve on temporary training duty, and 22,614 full-time Civil Service personnel.

National Library of Medicine

Substantial increases were achieved in the Library's accessions through development of new bibliographical selection sources and institutions offering exchange items. The collection increased to 1,049,-261 items as of June 30, 1960.

BOARD OF REGENTS

The Board of Regents met twice during the year, on November 13, 1959, and April 11, 1960. At the first meeting the Board examined and approved the proposed budget for fiscal year 1961, and inspected the new machine processing system used in publishing the *Index Medicus*. At the second meeting, the Board observed a demonstration of the working prototype of a mobile camera, discussed the question of using automatic data processing techniques, and reviewed preliminary estimates of the budget for fiscal year 1962.

THE NEW BUILDING

Only 31 percent of the Library's new building, begun June 17, 1959, had been constructed by the end of the fiscal year. The building schedule had specified 54 percent completion by that time. Unexpected blasting operations necessitated by extensive rock formations were principally responsible for this retarded progress.

INDEXING SERVICES

Mechanization of copy preparation for publication of the Library's monthly index of medical literature was completed. With the January 1960 issue, the old *Current List of Medical Literature* became the new *Index Medicus*. In 1961, the *Index Medicus* is expected to include 136,000 journal articles, an increase of almost 15 percent over the number indexed in 1959.

ORGANIZATIONAL CHANGES

Two major organizational changes were made, so as to accelerate the processing of library materials and to improve services to users. Acquisitioning and cataloging, formerly performed in separate units, were combined in a Technical Services Division. The interlibrary

loan program was strengthened by merging functions previously performed by three separate divisions and giving responsibility for them to a new Circulation Division.

INTERLIBRARY LOANS

Interlibrary loans increased 30 percent in fiscal year 1960, rising to 95,595 compared to 72,728 for the prior year. This added burden on the Library's facilities prompted the initiation of a study designed to provide data on which to base the development of more efficient procedures in the servicing and the use of the Library's collections.

PROGRAM STATISTICS

During fiscal year 1960 the Library acquired 16,028 books, 69,103 serial pieces, and added 1,090 new serial titles. Four hundred and twenty old and rare items were purchased for the History of Medicine collections. The staff cataloged 22,395 titles, and 2,302 pictures and portraits were added to the art collection. There were 135,366 volumes circulated; 9,046 reference questions were answered; and 151 bibliographies were prepared on special subjects. A total of 18,168 main entries were published in the 1959 segment of the quinquennial *National Library of Medicine Catalog*; 112,304 items were published in the *Current List of Medical Literature* and the *Index Medicus* from 1,626 journal titles.

In response to 90,984 requests, more than 2 million pages of medical literature were microfilmed. For preservation purposes, an additional 1.2 million pages were microfilmed.

Public Health Methods

The Division of Public Health Methods provides staff services to the Surgeon General, develops and conducts research studies directed toward evaluation of health and related problems in the population, and participates in public health planning activities to meet current and foreseeable needs. The Division edits and publishes the monthly *Public Health Reports*, the official technical journal of the Public Health Service, and conducts the National Health Survey.

FUTURE NEEDS FOR PHYSICIANS

The Surgeon General's Consultant Group on Medical Education, appointed in December 1958 to study the question of how the United States is to be supplied with an adequate number of well-qualified physicians, submitted its report to the Surgeon General in September 1959. The basic finding is that the United States faces a growing shortage of physicians. Among the consultant group's recommendations are the establishment of some 20 to 24 new 2-year and 4-year medical schools, expansion of existing schools, and financial aid for both the schools and medical students.

NATIONAL HEALTH SURVEY

During the year, the National Health Survey made progress toward all three of its major goals; The Health Interview Survey, the Health Examination Survey, and developmental and evaluation studies. Data from the continuing nationwide health interviewing provided the basis for reports on disability days; limitation of activity and mobility; chronic respiratory conditions; heart conditions and high blood pressure; types of injuries; and volume, interval, and frequency of dental visits.

A new series of reports for population groups, the first three of which deal with children and youth, veterans, and Hawaii also made use of these data.

Questions on types of accidents causing injuries and on health insurance coverage were added to the interview. The Health Examination Survey team, using specially designed mobile equipment, conducted two "stands" (at Philadelphia, Pennsylvania, and Valdosta, Georgia) of the first cycle of the Health Examination Survey.

ENVIRONMENTAL HEALTH STUDY

At the request of both Appropriations Committees of the Congress, the Public Health Service conducted a study of environmental health problems and the organization of facilities to meet them. Among the recommendations of the report of the study, which was submitted to the Congress in January 1960, was the more effective integration of environmental health activities at all levels of government, including the activities of the Public Health Service. The study was centered in the Division, with assistance given by other units of the Service and by a special panel of outside advisors.

HOMEMAKER SERVICES

The Division prepared and published *Homemaker Services—Report of the 1959 Conference*. That conference was sponsored by eight constituent units of the Department of Health, Education, and Welfare and twenty-six national voluntary agencies. In addition, the Division participated in the planning and conduct of two follow-up meetings called by the National Health Council on recommendation of the executive committee of the 1959 conference. The report of the first meeting, which dealt with "Personal Care in Homemaker Service Programs," was prepared in the Division and published in the July 1960 issue of the American Medical Association's *Homemaker Services Bulletin*. The second meeting dealt with the "Role of Voluntary Health Agencies in Homemaker Service Programs."

STUDIES AND REPORTS

A new publication in the Health Manpower Source Book series, presenting basic data pertinent to three health professions—physicians, dentists, and professional nurses—was prepared in cooperation with

the Division of Dental Resources and the Division of Nursing Resources. The data were selected to provide information to persons engaged in administering health services or in planning educational programs for the large number of health personnel that now are and will be needed to meet the demands of our expanding population.

The seventh listing of the Clearinghouse on Morbidity Projects was published. These listings are designed primarily to inform research workers of research projects underway and studies not yet published which may have bearing on their work.

Other studies completed during the year include long-term trends in illness levels; the economic effects of public health programs in underdeveloped countries; hospital use in Hagerstown, Maryland; State and local government expenditures for health and hospitals; and health manpower 1930-75. The Division also provided technical assistance and consultation as requested by State, regional, and professional organizations.

WORK IN PROGRESS

Work underway includes a national survey of medical group practice; work with the Division of Hospital and Medical Facilities and a committee of the Association of American Medical Colleges on the development of guides for the construction of medical schools; compilation of a textbook on the administration of community health services in cooperation with the City Managers Association and the American Public Health Association; a study of trends in medical practice; a study of social welfare manpower; a study of practical nurse education in cooperation with the National League for Nursing and the American Nurses' Association; a study of the baccalaureate origins of physicians; the tenth in the Health Manpower Source Book series, which will present data on physicians, dentists, and veterinarians by county; and development of a guide for community surveys of long-term patients and resources for their care.

The National Institutes of Health

Medical research throughout the Nation continued to expand during fiscal year 1960, with Government supporting a little more than half. The National Institutes of Health, research arm of the Public Health Service at Bethesda, Maryland, awarded 80 percent of its \$430 million total appropriation to aid research projects, training, and construction in non-Federal institutions. In approving the grants, the Surgeon General followed the recommendations of distinguished private citizens composing the National Advisory Councils. NIH programs emphasize research on the chronic diseases, which have become increasingly significant as infectious diseases decline.

Substantive highlights of the NIH program included collaborative studies of perinatal disease, the cancer chemotherapy program, collaborative research in psychopharmacology, the field of viruses and cancer, the development of a program in mathematics and physical biology, activities concerning the development of a live-virus polio vaccine, new construction at Bethesda, programs to support research in other countries and exchange of scientists and scientific information, establishment of programs for training in basic sciences, and the program of grants for construction of health research facilities.

Grants and training awards were made in unprecedented number—18,624. Criteria established by the President with a view to assuring program quality despite rapid growth were applied to new grant applications, and the ratio of approvals to applications was about 1 to 2. Totals of all grants and training awards approved for payment from 1960 funds are tabulated (table 3) on page 175.

Increased responsibilities have necessitated reorganization of the Office of the Director. As approved by the Surgeon General, the new organizational plan (1) establishes the position of Deputy Director, NIH, with special responsibility for the coordination of policy for extramural programs; (2) broadens the scope of the associate director for intramural research under the new title Director of Laboratories and Clinics; and (3) provides for five top-level staff positions with titles of Associate Director—four covering extramural activities (research grants, training, institutional relations, and collaborative research) and one for the intramural area of clinical care administration. Offices for program planning, research information, administrative management (headed by the Executive Officer of NIH), and international research activities complete the Director's Office. The Director is also aided by the Advisory Policy Committee of Institute Directors.

Clinical, laboratory, and office facilities are under construction at Bethesda. A four-story surgical wing at the Clinical Center, started in August 1959, will incorporate many innovations for the advancement of surgery on the heart and nervous system. A two-wing general office building with space for 1,900 employees was started in October 1959. H-shaped, it will consist of a south wing with 11 stories and a north wing with 5. Buildings to house the National Library of Medicine, National Institute of Dental Research, and Division of Biologics Standards progressed through the fiscal year. The DBS building was dedicated June 30 by his Majesty Bhumibol Adulyadej, King of Thailand. Other projects included purchase of a 513-acre site near Poolsville, Md., for an animal farm.

In light of its expanding extramural programs, NIH recognizes a growing obligation to help grantee institutions sustain initiative.

Institutional strength and stability are goals in a strong program of training awards, grants enabling schools to develop ways of producing medical scientists, development of extramural research centers and primate colonies, and a trend toward larger grants for more broadly defined objectives.

In addition to the appraisals of the NIH program implicit in the participation of its hundreds of non-Federal advisors, several special appraisals were made by non-Federal groups. For the Senate Appropriations Committee, consultants under the chairmanship of Dr. Boisfeuillet Jones rendered a comprehensive assessment entitled *Federal Support of Medical Research*. An NIH task force studied the impact of NIH grant programs on medical schools. Forces that may be expected to shape future trends in NIH programs include the need for balanced development of research resources and the opportunities afforded by new techniques and specialties for probing deeper into the unknown.

The following reports on the seven Institutes, Clinical Center, and four Divisions represent significant advances in program development as well as in knowledge of health and disease.

Division of Biologics Standards

The Division is responsible for administering the control requirements with respect to the safety and potency of biological products that are entered into interstate and foreign commerce. The regulatory function is carried out through issuance of establishment and product licenses, following determination that prescribed standards of safety, purity, and potency have been met. At the end of the year, 182 establishment licenses and 1,252 product licenses were in effect.

Tests are performed at the rate of approximately 3,400 a year. In addition, approximately 4,000 vials of physical reference standards prepared by the Division are distributed annually to manufacturers and to laboratories engaged in biological standardization.

The flexibility of the Division's research program has made it possible to keep pace with the accelerated production of biological products. The production of inactivated poliomyelitis vaccine continued to be closely monitored, but increasing interest in the development of a live attenuated poliovirus vaccine called for intensive study of the three sets of Type 1, 2, and 3 poliovirus strains used in world-wide field trials. The Division's safety testing program, which over the past 4 years has involved the use of 20,000 monkeys, provided invaluable experience in inoculation methods as well as interpretation of data on the neurovirulence for monkeys. These data enabled

the PHS Committee on Live Poliovirus Vaccine to recommend virus strains that could be considered as the most satisfactory for the production of such vaccines.

The Division's expanded laboratory facilities have made possible a broader program of investigation in the field of rickettsial diseases, including development of specific requirements for rickettsial antigens. Basic research on the physical and chemical factors that determine the biological properties of bacteria, rickettsia, and viruses, as well as their host cells, has become an integral part of the Division's research program.

A program for the investigation of the immunological and physico-chemical properties of blood proteins, including coagulation systems, provides essential information to support control functions in the area of blood and blood products.

Biophysical studies in progress include an investigation of the mechanism of thermal inactivation of viruses, determinations of the relative susceptibility of animal viruses to photodynamic inactivation, development of methods for differential inactivation of simian viruses in suspensions of live attenuated polioviruses, and the study of the effects of various physical and chemical stresses upon metabolism of tissue culture cells.

Division of General Medical Sciences

Established in July 1958, the Division administers NIH grant programs for research in the sciences basic to medicine and biology, in environmental and public health, and in certain clinical sciences. The Division also administers the grant programs for training investigators in the basic biomedical sciences, provides fellowships for general research training, and directs the NIH Center for Aging Research. There was a total increase of more than 21 percent in the research program over the previous year, with particularly noteworthy increments in studies of the chemistry of life processes, biology of human development, and environmental health.

A number of important research advances have resulted from the Division's grant programs. These include new knowledge on the role of ribonucleic acid in defending the body against disease—potentially another step forward in understanding the importance of genetics in man's health. Another DGMS-supported scientist has found that the juvenile hormone, once thought to exist only in insects, occurs also in human tissue, raising questions about its importance in the biological process of aging.

Other recent scientific achievements promoted by the Division's work relate to the value of folic acid in treating megaloblastic anemia;

new findings in connection with galactosemia; the importance of essential fatty acids in preventing disease; the mechanism by which reserpine promotes gastric ulcers; the nature of damage caused by chronic lead poisoning to female reproductive functions; new data on the controlling mechanism of mitosis; the effects of certain drugs on pregnant women; the way the unborn child is nourished by the mother; and the function of the larynx.

During the past year the DGMS training programs, which include support for graduate research training and also research fellowships at several levels, were enlarged sharply to help meet national needs. The graduate training program, under which funds are provided to medical schools, universities, and other institutions for the training of investigators in the basic biomedical sciences, increased 75 percent over fiscal year 1959, with relatively great increases in the number of fellowships.

At the end of fiscal 1960 these programs were providing various levels of basic training for more than 3,500 persons across the Nation. Since July 1958, when the Division was providing support for graduate research training in two areas, Epidemiology and Biometry, the Division has established full-time, regular programs in nine additional fields—the Anatomical Sciences, Biochemistry, Developmental Biology, Genetics, Microbiology, Pathology, Pharmacology, Physiology, and Physical Biology.

Three new activities added to the Division's responsibilities during fiscal 1960 were the Clinical Research Center Program, the Russian Scientific Translation Program, and the Foreign Grants and Awards Program.

Establishment of the Clinical Research Center Program by NIH was directed by the Senate Committee on Appropriations (Report 425, 86th Congress, First Session). The purpose of the program is to help meet national needs for specialized facilities in support of clinical research in a broad spectrum of diseases. Grant funds are made available to local sponsoring institutions across the country, such as medical schools and research hospitals, for the establishment of special research facilities, centers, or units. The funds pay for the renovation and equipping of facilities, the major costs of patient care, supporting laboratories, and staff salaries. Grants were made to eight institutions.

The Russian Scientific Translation Program, transferred to this Division during the year from the Division of Research Grants, has the assignment of translating, through contracts or grants, Russian documents in the fields of medicine and biology, and distributing them among appropriate groups in the American scientific community.

The Foreign Grants and Awards Program, also transferred to DGMS from DRG, has the prime NIH administrative responsibility

for those grants and awards, in research and training, involving foreign nationals. The program also provides the means for outstanding scientists and recent postdoctorates from U.S. and foreign institutions to work at NIH for training purposes for specified periods of time.

CENTER FOR AGING RESEARCH

Scientific interest in research in aging, as measured by the NIH programs, reached a new level during fiscal 1960. The dollar value of all grants for research in aging on January 31, 1960, was approximately \$12.5 million.

The Center for Aging Research, a component of DGMS, fosters research and research training projects in aging and serves as the NIH focal point for information on the grants and programs in gerontology. In July 1960 the Center published "Research Highlights in Aging" (Public Health Service Publication No. 779), which is a review of more than 500 selected scientific papers reporting on research projects in aging under support by NIH.

Division of Research Grants

The Division of Research Grants served as the administrative center of the \$302-million extramural grant and award programs of the National Institutes of Health. This dollar total represents the largest increase in funds for medical research in the history of the extramural program. In fiscal 1960 this responsibility included the administration of the research grant and fellowship programs, newly assigned functions in the area of research training, and direct management of the \$30-million-a-year Health Research Facilities Construction Program. Because the need for research facilities was still acute in 1958, the 86th Congress extended the original three-year Health Research Facilities program to include fiscal years 1959 through 1961.

The Division was assigned in 1960 the administration of the NIH training grant and traineeship awards, in view of the expansion and complexity of supportive training of research manpower. Responsibilities in this area parallel those of the Division in the research grant program: receiving and assigning applications, reviewing budget requests of applications, establishing policies and procedures for payment and management of grants and awards, maintaining central records, providing information on these programs, and establishing review committees.

To maintain the high standards of review for the growing number of research grant applications, the Division increased the number of study sections from 32 to 36. These study sections, whose primary function is technical review of applications, have also continued their

program activities by stimulating and planning an increased number of meetings and seminars to exchange, gather, and publish information on specific health problems and needs.

Division of Research Services

An increase in the number of mathematicians on the staff of the Division of Research Services led to a rapid expansion in electronic data processing. As a result, the number, kinds, and complexity of research studies programed on the electronic computer have increased greatly, and the use of the computer approximates the saturation level of three shifts a day. Studies of computer equipment requirements were begun in relation to forecasts of expanded NIH computation and data processing needs.

The Division expanded its range of services in other areas including scientific instrumentation design, and in the design and planning of laboratory facilities. A master site plan developed for the new animal farm will become the basis for architectural design and construction of research facilities to be located there. The plan is essentially a projection of the building and terrain requirements for studies of animals in their natural environment as well as for long-term holding of large animals, such as cows, horses, and swine, and the production of selected laboratory animals.

Clinical Center

The Clinical Center continued to fulfill its mission of providing hospital and laboratory research facilities to the seven National Institutes of Health. Optimal utilization of research beds was maintained for the second year. Physician referrals continued to come from all sections of the United States and many foreign countries.

Construction of the new surgical wing, started early in 1959, was about half completed by the end of the fiscal year, and is scheduled for occupancy early in 1961.

Intensified efforts were made to expand the sources of recruiting "normal control" patients. A new contract was activated with one university, an expanded contract with another; and special arrangements with Federal prisons were initiated. Consequently the volunteer admissions of normal controls were increased by 20 percent over the previous year.

Many well-qualified young physicians continued to seek appointments as Clinical Associates or Fellows in the Center's advanced clinical research training program. During fiscal 1960 approvals were gained from American Boards for two new residency programs, Dermatology and Periodontal Disease.

The NIH visitor program, conducted by the Clinical Center since 1958, continues to reflect the widespread interest in basic medical research and the rapidly increasing volume of clinical research throughout the country. During the past year eleven major lectures, medical meetings, and scientific symposia were held. Many distinguished professional and scientific visitors were registered from foreign countries. In addition to the regular annual lectures and symposia, a number of closed-circuit television programs were presented to visitor groups.

Institute of Allergy and Infectious Diseases

Studies by Institute scientists and grantees during the year challenged old concepts, established new knowledge, and gave hope for effective therapy against several infectious diseases.

An experimental feat performed in the Institute's Laboratory of Parasite Chemotherapy—the transmission for the first time of monkey malaria to man through the bite of an infected mosquito—has demonstrated the need for re-examining long-established knowledge on the transmission cycle of this disease. Heretofore, malaria investigators throughout the world held that types of malaria which infect animals cannot be transmitted to man by the bite of the infected mosquito. No one can yet say whether this finding will have any practical effect on present worldwide malaria eradication programs.

Experimental animal studies have yielded promising results in the treatment of schistosomiasis, a parasitic disease widespread in many parts of the world. The effectiveness of tartar emetic or stibophen, combined with glycerin, against experimental infection of *Schistosoma mansoni* in mice indicated that glycerin as an adjuvant of heavy-metal compounds could also be tested profitably against other schistosome infections.

Investigations by scientists of the Institute, University of Maryland, and the Communicable Disease Center added weight to the thesis that viruses may be an important cause of the respiratory disease in cattle known as shipping fever, and suggest that domestic animals may serve as reservoirs of the parainfluenza 3 virus. The three-year research program resulted in the recovery of parainfluenza virus from specimens not only from different parts of the United States but from Tahiti and Japan.

In the area of diagnosis, Institute scientists developed a simple and rapid test for lupus erythematosus, a connective tissue disease related to rheumatoid arthritis. The new flocculation test seems to be more specific than the widely used cell test.

Institute scientists discovered that filarial worms may be visualized by a simple fluorescent method in a patient receiving tetracycline. The finding offers diagnostic and therapeutic possibilities.

An investigation by the Institute's Rocky Mountain Laboratory of outbreaks of Asian influenza on St. Paul and St. Lawrence Islands in the Bering Sea emphasized the value of infectious disease studies in remote communities as a source of epidemiological information. More than 80 percent of the population of each island was infected, and in each case the researchers were able to identify the source of infection and the precise time limits of virus activity.

Research by an Institute scientist and a grantee may provide information for future analysis, improvement, and standardization of house dust extracts widely used in allergy diagnosis and desensitization. They reported on a purified polysaccharide fraction that gives a characteristic skin reaction in specifically sensitive individuals.

Bacteriological and virological studies by the Institute's Middle America Research Unit, Gorgas Hospital, and U.S. Army scientists resulted in the first description of a natural infection of swine with the encephalomyocarditis virus. Further study of the agent, which has been implicated as a cause of human disease, is under way.

GRANT-SUPPORTED RESEARCH

An Institute grantee at Harvard University developed a simple and reliable test for the detection of early cases of pyelonephritis, a disease which occurs widely in pregnant women and persons suffering from obstructive diseases of the urinary tract. The test, coupled with known therapy, clears the way for the virtual elimination of pyelonephritis among pregnant women.

A study by grantees at the New York Hospital-Cornell Medical Center demonstrated that experimental staphylococcus infections previously thought to be penicillin-resistant can be effectively treated by the antibiotic if therapy is begun promptly and administered in sufficient dosage. Their laboratory experiments significantly reduced the mortality of mice exposed to a highly virulent strain of staphylococcus.

Grant-supported investigations at the California State Department of Public Health disclosed that mumps virus may mimic paralytic poliomyelitis. The disclosure resulted from the clinical testing of patients previously diagnosed as having the latter disease.

Grantees at Yale University School of Medicine isolated eastern equine encephalitis virus for the first time from the *Aedes vexans* mosquito. Their findings help clarify the epidemiological significance of this mosquito which feeds readily on man and animals.

Institute of Arthritis and Metabolic Diseases

In celebrating its tenth anniversary this year, the Arthritis Institute could reflect upon a decade of substantial progress in the fields of arthritis, diabetes, and other fields of interest.

ARTHRITIC DISEASES

The physician has been provided with a whole spectrum of new anti-inflammatory drugs for treating rheumatoid arthritis. These new drugs, which are much more potent than cortisone and produce fewer side effects, received intensive clinical testing at the Institute and other research centers. Although they cannot cure the disease, they provide relief from pain and swelling for thousands of patients.

Strong clues to the basic cause of rheumatoid arthritis have been uncovered through intensive laboratory studies. This year, for example, Institute grantees at the Hospital for Special Surgery in New York City were able for the first time to find the rheumatoid factor in tissue cells. Although considerable research has been done on this factor, and its presence in the blood is considered diagnostic of rheumatoid arthritis, the role it plays in the disease is not fully understood. The rheumatoid factor has many of the characteristics of an antibody, a protein substance which in some cases provides immunity to a particular disease, such as diphtheria or measles, and in others is the basis for a hypersensitive state such as hay fever or asthma. In rheumatoid arthritis, such antibodylike material suggests the presence of an antigen, or some substance of a deleterious nature to which the body is abnormally sensitive.

This theory has now received further support from the discovery of rheumatoid factor in the plasma cells and germinal-center cells of the body, since both of these cell types are usually engaged in antibody production. In addition, in another disease closely related to rheumatoid arthritis, called Sjogren's syndrome; Institute scientists have found evidence of a basic disorder in antibody production.

In studies of gout, Institute scientists have found that an experimental drug, DON, synthesized by a private pharmaceutical laboratory, can slow the body's overproduction of uric acid, a common feature of the disease. Although the drug produces undesirable side effects and has little practical value, it points the way toward the development of similar compounds that will slow uric acid production without toxicity.

DIABETES

Of major research interest to the Institute is diabetes, probably the best known and most important of the metabolic diseases. One of the most dramatic developments in this field has been the recent and widespread use of oral antidiabetic drugs, which have enabled thousands of diabetics to substitute a tablet for their regular injections of insulin.

Three years of experience with these new blood-sugar-lowering compounds has made it clear that they are not "miracle drugs." They cannot cure diabetes. They are most valuable in cases of mild, recently acquired diabetes, and least effective in young patients. One

promising application of the oral drugs is in diabetes prevention. Research results are still inconclusive, but Institute grantees at the University of Michigan have found indications that these compounds cause some improvement in "pre-diabetic" persons who are susceptible to diabetes and may develop the disease later in life.

A diabetes study by grantees at Yale University indicated that strict low-fat diets can lower the amount of fatty substances in the patient's blood, increase the body's ability to handle excess sugar, and benefit the eye complications that often accompany diabetes and lead to blindness. Other diabetes researchers at Harvard Medical School and Peter Bent Brigham Hospital have found that adipose (fat) tissue, far from being merely a storage place for body fat, may well be a major site of insulin action in the body.

OTHER METABOLIC DISEASES, BASIC RESEARCH

This year the Institute strengthened its research programs in two other areas, gastroenterology and cystic fibrosis. A new gastroenterological unit has been established to carry out intensive studies of the diseases grouped under the term "malabsorption syndrome"—disorders in which the absorptive capacity of the small intestine has been affected. A new pediatric metabolism branch has also been established at the Institute and is concentrating on metabolic studies of cystic fibrosis, an often fatal disease of childhood.

During the past year accomplishments in basic research were highlighted by the awarding of the Nobel Prize in Medicine for work done on the synthesis of nucleic acids. This year's recipients were Dr. Arthur Kornberg, a former chief of one of the Institute's laboratories and now at Stanford University, and Dr. Severo Ochoa, an Institute grantee at New York University.

Other developments in basic research included the discovery of the first eight-carbon sugar to be found in nature.

The pharmaceutical industry began to market the new Institute-developed pain killer, phenazocine, which is many times more powerful than morphine. Patent rights to this synthetic analgesic have been assigned by its discoverers to the U.S. Government, which in turn has made them available to all countries of the world.

Cancer Institute

Cancer is one of the major health problems of our time. Annually over 500,000 Americans acquire the disease and about 260,000 die of it. Over \$12 billion is lost to the Nation each year because of cancer.

To meet this growing problem, the National Cancer Institute has continued to explore the major research areas of prevention, detection, and treatment. Advances in fundamental knowledge of biochem-

istry, tumor-host relationships, and the nature of cellular growth give promise of still greater gains in the attack on malignant disease.

Research into the causes of cancer may lead to more effective prevention. Recent studies have centered on viruses as possible causative agents in some human malignancies. The National Cancer Institute has expanded its virus-cancer program and attracted leading virologists, both here and abroad, to the field.

In its new diagnostic research program, the Institute is seeking methods of detecting cancer at the earliest possible stage. Blood and other body fluids from cancer patients and well persons are being studied in an effort to find consistent patterns that will reveal the presence of early malignant disease. Research with exfoliative cytology, the microscopic examination of cells that collect in body fluids, may lead to more prompt detection of cancer of many sites. This technique has been successfully used for several years in the detection of uterine cancer.

In the area of treatment, hope for the cancer patient who is beyond the reach of surgery and radiotherapy lies in research to develop new anticancer drugs and improve techniques of administering them. Under the national cancer chemotherapy program, new drugs are being tested at the rate of 50,000 per year, and about 110 drugs are being evaluated in studies involving 8,000 patients.

National Cancer Institute scientists continued studies of the polyoma virus, which produces some 23 different forms of cancer in mice and also induces tumors in rats and hamsters. Studies of resistance to the development of tumors in mice showed that mothers exposed to an environment contaminated by the virus conferred greater immunity to their offspring than did mothers in an uncontaminated environment.

Since viruses live and reproduce only within cells, one of the most useful ways of studying them is in tissue culture. For many years blood serum has served as an excellent nutrient for cells cultured in glass. But serum contains inhibitors of viral growth and therefore is not satisfactory as a medium for the culture of viral materials. In an effort to overcome this obstacle, an Institute pathologist developed a medium in which serum is replaced by fat-free milk, which presumably does not contain virus inhibitors. Use of this medium may permit more detailed studies of the effects of viruses upon cells, particularly the role of viruses in the production of cancer.

The use of an alkylating agent, cyclophosphamide, in the treatment of mice with advanced leukemia increased their average survival time up to 200 percent. The investigations showed that cyclophosphamide gives better results than either of two well-known anticancer

drugs, methotrexate and nitrogen mustard. The new drug is being tested in cancer patients, and preliminary results appear encouraging.

Malignancies within the central nervous system are not easily accessible to treatment with anticancer drugs, because no such drug will pass from the blood to the cerebrospinal fluid. Institute scientists have investigated the so-called "blood-brain barrier," and have developed a method that will quantitatively determine to what degree drugs will pass through it. In these studies, it was found that the blood-brain barrier is not as specific as was once thought and appears to have properties very similar to other biological membranes. With better understanding of the problem and utilization of the new method, it may be possible to develop anticancer drugs that will penetrate the barrier when administered into the blood stream.

Normal serum from human and other species was found to exert a lethal effect on mouse tumor cells in the test tube. Tumor cells mixed with human serum failed to grow when injected into mice, while control cells gave rise to progressive growth of tumors within 8 to 12 days after inoculation. A natural antibody from normal serum seemed to be responsible. The investigators conclude that such an antibody may serve as a barrier against invasion by foreign cells.

The significance of cancer cells circulating in the blood was further studied. A greater frequency of cancer cells in both peripheral and tumor-area blood was found in patients with inoperable cancer than in patients whose disease could be treated surgically. Research is now aimed at learning how this finding can be useful in the management of malignant disease.

An epidemiological study of patients with uterine cancer revealed that the survival rate today is substantially better than it was 25 years ago. The improvement is associated with increased use of surgery and possibly the more widespread use of the cytologic test. The investigators showed that the five-year survival rate among patients treated surgically for localized uterine cancer is almost 90 percent. They also pointed out, however, that the mortality rate for breast cancer has not declined in the past quarter-century. They suggested that increased survival rates for breast cancer patients will come from the development of new techniques rather than refinement of those now in use.

GRANT-SUPPORTED RESEARCH

National Cancer Institute grantees at the University of Southern California reported studies of the irritating effect of cigarette smoke on the lining of the lung. Such irritation is not produced by cigarette smoking alone, but is traceable to other environmental agents as well. The investigators suggested that the actual harm and possible carcinogenic effect of smoking come from the deposition of irritating

particles, resulting in impairment of the normal cleaning action of the lungs.

Grantees at Harvard University and the Children's Medical Center showed that administration of the antibiotic, actinomycin D, enhances the effects of radiation treatment. Smaller dosage of radiation can be used in combination with this drug, and hence less damage is done to normal tissue. In addition, favorable results of longer duration were achieved by this combination of treatments.

Grantees at Tulane University, Charity Hospital, and the U.S. Public Health Service Hospital in New Orleans reported results of an investigation involving isolation-perfusion chemotherapy. This procedure involves isolating the tumor-bearing area from the rest of the circulatory system and introducing into it high concentrations of anti-cancer drugs. Of 73 patients with various forms of cancer treated in this study, 60 responded favorably and 22 showed complete disappearance of their disease.

Institute of Dental Research

The discovery of a means of significantly controlling dental decay by fluoridation does not alter the fact that the causes of this widespread disease are still obscure. Research therefore continues to provide new knowledge to augment or challenge existing concepts of etiology and control of caries and other principal oral diseases.

Dental decay has been produced in germfree animals by inoculating their mouths with a single strain of streptococcus bacteria. Moreover, in conventional animals with a presumed hereditary resistance, it has been possible to initiate carious lesions by exposure to specific bacteria recovered from a caries-susceptible strain. These studies have stimulated interest in the possible transmissible nature of the disease.

Investigations using the electron microscope have provided further basic information on the formation and calcification of bones and teeth and on their ultimate structure in the fully mature state.

A better understanding of the essential role of connective tissue in periodontal disease has been gained from the development of highly useful histochemical stains. These have made possible the identification of a heretofore unknown connective tissue fiber, observation of previously unrecognized connective tissue changes in a degenerative neurological disease, and diagnostic differentiation between tissue adjacent to malignant and nonmalignant tumors.

Epidemiological studies of oral disease in relation to nutrition have been completed in Alaska, Ethiopia, Peru, Ecuador, Vietnam, and Chile. Results showed caries levels to be generally low by U.S. standards, but periodontal disease to be more prevalent and severe. Prom-

ising leads suggest correlations of these findings and general oral health with nutritional status.

GRANTS AND AWARDS

The Institute increased its support of dental research projects, particularly in the broad fields of periodontal disease, oral congenital anomalies, and dental caries. For example, grantees at the Harvard School of Dental Medicine reported on significant electron microscopy studies of calculus, a material associated with periodontal disease. Gains made in the field of cleft lip and palate research were identified with an expanded research program at New York University. And virtually all of the Nation's dental schools contributed new knowledge in studies of dental and other oral diseases.

Progress in the area of training was seen in the establishment of additional research training centers and in supplemental support to current training programs.

Heart Institute

The National Heart Institute vigorously pursued the conduct and support of research on cardiovascular disease, the leading cause of death in the United States.

Arteriosclerosis, the most prevalent form of heart disease, and one of the most difficult to approach because of its gradual onset and complex physiology, received the greatest research emphasis. In this disease, deposits of fatty materials slowly accumulate on the walls of arteries, impeding blood flow. The year's progress against arteriosclerosis has been in the understanding of hormones, protein structures, enzymes, and physiological mechanisms involved in the storage, transport, and utilization of these fatty substances.

For example, previous NHI work had led to the realization that the well-known hormone, adrenalin, is involved in the normal mobilization of stored fats into the blood to sustain life processes during emergencies. The studies have now shown that excess adrenalin, acting in concert with cortisone, another adrenal hormone, can cause a striking increase in the cholesterol-bearing lipoproteins in the blood. Since secretion of both hormones increases in subjects exposed to physical and emotional stresses, the finding suggests plausible links between high-tension living, high blood cholesterol, and arteriosclerotic deposits.

Several methods were developed for lowering blood cholesterol levels through alteration of diet and through certain drugs which inhibit cholesterol synthesis in the body. Studies showed, however, that the latter approach seems to bring about the appearance of cholesterol's immediate chemical precursor, which is normally absent from the

blood. This opened to question the desirability of such practices at the present state of knowledge.

Research in the field of hypertension, or high blood pressure, continued along two lines: clarification of the processes causing the disorder, and direct attempts to improve hypotensive drug therapy. Trials of members of a new class of compounds, known as monoamine oxidase inhibitors, produced promising results. These substances, which act indirectly on blood-pressure-regulating hormones, enabled scientists to uncover important new physiological information, and offered the prospect of greatly improved drugs for treating patients. Another group of compounds, the decarboxylase inhibitors, which block production of aromatic amines suspected of being important in the development of hypertension, were given clinical trials.

Among the year's developments in the field of surgery was the replacement of a patient's diseased mitral valve with an artificial one made of flexible plastic foam reinforced with dacron. Another development was establishment of the diagnostic value of radioactive krypton gas for detecting and locating cardiac shunts, or abnormal openings in the partition separating the heart chambers. Other studies showed that the use of potassium citrate for arresting heart-beat during surgery entails too much danger of irreversible heart failure and led to the abandonment of the drug by NHI in favor of the anoxic method of cardiac arrest. This method interrupts blood flow through the heart by intermittently clamping off the aorta.

Gas chromatography, already shown to be an extremely reliable method for the quantitative and qualitative analysis of fatty components of blood and atherosclerotic deposits, was adapted for the separation and analysis of steroids.

Studies in the biology of aging produced the discovery that insoluble solids called age pigments, long known to be present in some tissues of aged persons, accumulate in the cells of the human heart muscle at a constant rate throughout life, beginning in the second decade. They ultimately displace as much as ten percent of the cellular volume. The accumulation appears to meet criteria set forth for a "basic biological aging process."

GRANT-SUPPORTED RESEARCH

Investigations of the delicate balance normally maintained in the blood between coagulation and clot dissolution support the idea that the balance is upset in blood-clotting diseases. Heart Institute grantees at Wayne State University, Detroit, reported in 1960 that they have prepared a clot-dissolving enzyme from thrombin, a blood constituent normally involved in coagulation, and have demonstrated its effectiveness in dogs. The work is believed to open possibilities for human application.

Comparison of aortic and coronary atherosclerosis in the United States, Jamaica, Japan, and India by a group of grantees at Harvard University showed a greater severity of intimal alteration in the U.S. than in the other groups. The study also showed that in Japan and Jamaica, the atherosclerosis was more severe in the aorta than in the coronaries.

In studies at Columbia University, further evidence was found linking oversecretion of the hormone, aldosterone, with malignant hypertension through at least initial success in treating patients with "blocking" chemicals which prevent the biological action of the hormone.

A three-year study was begun in five PHS hospitals to test various drugs for hypertension. Three hundred outpatients will participate at Staten Island, Baltimore, Norfolk, New Orleans, and San Francisco.

At the Cleveland Clinic in Cleveland, Ohio, two artificial heart prototypes were designed and tested in dogs and in a mock circulatory system.

Several types of artificial heart valves, made from various plastics, were developed by grantees at the University of Minnesota in Minneapolis. One valve of the "flap" type shows definite clinical promise in severe rheumatic heart disease.

At the same institution, a portable, electric cardiac pacemaker was reported for treating patients with complete heart block and found capable of maintaining normal heart rhythm for periods up to fifteen months. Complete heart block may occur as a result of heart surgery, atherosclerosis, infection, or certain drugs. The transistorized pacemaker maintains the heart beat until the diseased or injured tissue regenerates and the heart's own pacemaker can resume normal function.

A new surgical technique developed at Baylor University, Houston, Texas, is reported to permit removal of atherosclerotic obstructions to blood flow in small arteries. A knitted dacron patch is applied to the incision left after removal of the obstruction. This overcomes the problem formerly posed by constriction of the inner diameter of the artery at the incision site during the healing process.

Institute of Mental Health

Throughout the Institute special attention was given to problems of current public concern. The Institute collaborated with the Children's Bureau in drawing up a report to Congress on what can and should be done about juvenile delinquency. Through a grant to the North American Association of Alcoholism Programs, it launched a five-year study of alcoholism in the United States and Canada. The

NIMH program also stressed mental retardation, childhood psychoses, and aging.

New and improved methods for the care, treatment, and rehabilitation of the mentally ill continued to receive great emphasis. Evidence that past efforts have borne fruit is the fact that in 1959, for the fourth consecutive year, there were fewer patients in mental hospitals at the end of the year than at the beginning.

SUPPORT OF RESEARCH

During fiscal year 1960 NIMH supported over 1,000 research grants—in psychiatry, sociology, anthropology, biochemistry, neurophysiology, and more than a score of other disciplines. The breadth and diversity of the research reflects the policy of the Institute to leave no area unexplored that might contribute to the understanding and amelioration of mental illness.

A heavy share of the grant investment was for research into the underlying physiology of schizophrenia. With increased precision of biochemical research, serious doubts have been cast on earlier attempts to relate abnormal body chemistry to mental illness. New evidences of such a relationship, however, continued to emerge from grant-supported research. Support was also given to numerous studies of the psychiatric and socio-environmental aspects of schizophrenia.

Studies of drugs used in mental illness continued to increase under grants from the Psychopharmacology Service Center. Investigations started earlier were beginning to yield results. Some of the most definitive findings came from outpatient studies of the effectiveness of drugs in treating relatively chronic schizophrenic patients in the community. One such study has conclusively shown that drugs play a very important part in preventing relapse in schizophrenics released to the community after two or more years of hospitalization.

Many of the grants were for studies concerned with children. Some of them focus on childhood schizophrenia and others on less serious but more prevalent disorders. Juvenile delinquency was under study in 47 grant-supported projects. Support was also given to studies of normal growth and development, since a more accurate knowledge of normal physical and psychological functioning at different stages is needed as a baseline against which to measure and evaluate behavioral deviations.

BASIC RESEARCH

In the Institute's own facilities, work was going forward on a wide variety of basic and clinical investigations. Scientists in a number of basic laboratories are endeavoring to relate brain structure and function to behavior. For example, the Laboratory of Animal Behavior is using experimental animals to study the effects of brain

lesions on learning. In the Laboratory of Neurophysiology, scientists are investigating the role of the limbic system ("primitive brain") in shaping behavior. Other neurophysiological studies have shown that sleep is associated with an alteration of the pattern of cerebral activity, and that normal behavior is at least partially dependent on continuous sensory input of the brain.

Investigators at the NIMH Addiction Research Center in Lexington, Kentucky, were principally concerned with studies on the addiction liabilities of new drugs. They conducted several clinical studies on alcoholism. They also investigated psychological and behavioral changes induced by several drugs of particular significance in mental health research, among them LSD-25 (which produces schizophrenia-like effects), chlorpromazine (a tranquilizer), and alcohol.

A project for testing research instruments and methods of evaluating the effectiveness of drug use and "milieu therapy" in a mental hospital population was conducted by a group of scientists at the Neuropharmacology Research Center located in Saint Elizabeth Hospital. It showed that such studies can be pursued in a typical State hospital setting, and mapped out a feasible way to conduct them.

The Section on Aging in the Laboratory of Psychology organized and edited the "Handbook on Aging and the Individual: Psychological and Biological Aspects." The book is an authoritative technical summary of the scientific and professional literature on the psychological and social aspects of human aging. Five of the 24 chapters were written by NIMH staff members.

CLINICAL INVESTIGATIONS

The Laboratory of Clinical Science concentrated on biochemical research to investigate the possible relationship between some forms of mental illness and biochemical processes in the brain and nervous system. To date, the schizophrenic patients studied, either individually or as a group, have shown little abnormality in the research completed.

A number of laboratories have participated in an extended study of healthy elderly men and a companion study of men with mild diseases (mostly vascular), which will give insight into the psychological, physiological, psychiatric, and socio-psychological aspects of aging. A monograph is planned to include the results of this collaborative effort.

Scientists in the Child Development Section continued intensive research on mother-child relationships and on the ways in which early environmental factors affect intellectual and personality growth. They have developed a research instrument by which they can record and compare research data on the emotional variables that enter into the mother-child relationship.

A new research undertaking, known as the Bio-Social Growth Center, is designed to investigate emotional, biological, and cultural factors as they influence personality from the earliest prenatal period of growth through infancy and early childhood.

Scientists in the Personality Development Section have carried forward a project for studying the behavior of competent adolescents, and particularly in learning how they cope with the stresses of the transition period from high school to college. They have studied the adaptive behavior and problem-solving techniques of 20 selected students before and during their freshman year. They are further attempting to make systematic comparisons of these students with some who broke down in the freshman year.

COMMUNITY SERVICES

Federal, State, and local funds budgeted by the States for community mental health services reached a new peak of \$65 million in fiscal year 1960. Federal grants-in-aid of \$5 million represented only 8 percent of the total funds budgeted. Originally, Federal grants-in-aid for community mental health services were offered the States on a 2:1 matching basis. The ratio was changed at the beginning of fiscal 1960 to a 1:1 matching basis.

The Community Services Branch expanded its program of technical and professional assistance to the States through personnel from the central and regional offices and by workshops and conferences conducted as Technical Assistance Projects. Under the Mental Health Projects Grants Program, NIMH supported 132 projects to develop and test new and improved methods for the care, treatment, and rehabilitation of the mentally ill.

TRAINING

The Institute made some major adjustments in the timing of the training grants awards and in administrative procedures to accommodate the recipient institutions in developing their programs for training students. Funds were granted to projects in several new or expanded fields of professional training: graduate mental health research in the biological and social sciences; the psychiatric training of general practitioners; and the teaching of undergraduate medical students in the field of human behavior.

Institute of Neurological Diseases and Blindness

Neurological and sensory disorders constitute the primary cause of permanent crippling in the United States and rank third as the cause of death. New statistics emphasize again the extent to which long-term disability is caused by neurological disorders and the importance of the prenatal, birth, and early life period of development.

Because researchers are convinced that conditions existing during the early periods of life are responsible for a large percentage of disabilities which may continue throughout life, a major attack has been made in this area by the Institute. The Collaborative Project on Cerebral Palsy, Mental Retardation, and other Neurological and Sensory Disorders of Infancy and Childhood completed its first year of study in January 1960, after two and a half years of intensive preparation. In addition to about 5,516 mothers and 4,593 babies studied in the pretest phase of the project, about 8,029 mothers and 4,400 babies had been studied in the study series as of May 31, 1960. In the broadest sense, the objective is to evaluate those factors influencing the health of mothers and children throughout the Nation.

Of all the chronic neurological disorders of childhood and adolescence, mental retardation and cerebral palsy affect the most lives. In mental deficiency, the fact that galactosemia and phenylketonuria can both be ameliorated by special diets has provided increasing incentives and hope in the search for other similar anomalies. A simple mass screening test for phenylketonuria has been developed, and there is now no reason for this cause of mental deficiency to go undetected and bring irreparable brain damage. Technical advances have demonstrated that mongolism is attributable to a chromosome abnormality which probably develops at the time of ovulation. Up until five years ago, kernicterus was responsible for one percent of admissions to institutions for the mentally defective. As a result of the effective campaign against kernicterus, one institution now reports that over the past three years not a single case of mental retardation or cerebral palsy attributable to kernicterus has been admitted.

Studies in neurochemistry relating to epilepsy have revealed that gamma-aminobutyric acid, present in relatively large amounts in the normal brain, may regulate a portion of the available energy and affect levels of functional activity within the brain. Investigators are attempting to alter the level of this compound to determine the effect of this change on seizure activity.

Closely connected with the study of the formation of myelin is the evaluation of "allergic encephalomyelitis"—the inflammatory process through which the myelin is destroyed in certain allergic conditions which have at least superficial resemblances to multiple sclerosis. The method of production of this disease in animals is now well established, and this year brought further clarification of the specific chemical fraction responsible for producing the destructive reaction.

In disorders of vision, an outstanding development in the cataract program is the demonstration of minute changes in the structures and fibers of the cataractous lens. An important cause of blindness in the older age group is glaucoma. Investigations continue on the effects

of various drugs such as acetazolamide on relieving the intra-ocular pressure associated with this disorder. The Institute, in cooperation with the Bureau of State Services, has launched a five-year cooperative study to evaluate techniques currently used to detect and identify glaucoma.

Progress continues in basic research studies of the nerve pathway by which the brain itself controls the sensitivity of hearing. The arrangement of the nerve terminals and manner of distribution within the ear have been determined. Other connections of the cochlear nucleus have been studied, and two new bundles of efferent nerve fibers have been identified. In addition, the Institute's collaborative project includes correlations of hearing and speech disorders with events of pregnancy and labor.

GRANT-SUPPORTED RESEARCH

In the Institute's cooperative project on aneurysms, the surgical approach to intracranial aneurysms is being evaluated and refined. The initial results of the cooperative anticoagulant study have revealed that the use of anticoagulants does not produce a dramatic change in over-all mortality. This study is providing information on certain benefits to be derived from this therapy, its limitations, the types of cases in which therapy is desirable, and the complications to be avoided.

This year the Institute has launched a new epidemiological program to determine variations in the incidence and character of cerebrovascular disease in different countries. A research grant for the planning of this international study of the epidemiology and neuropathology of strokes has been awarded by NINDB to the World Federation of Neurology, with headquarters in Antwerp, Belgium. This project proposes to investigate factors which cause strokes in different national, ethnic, racial, and cultural groups throughout the world.

Special attention is also being given by the Institute to research directly related to the aging process of the central and peripheral nervous system. Colonies of aging animals are being maintained in various centers for research on alterations in the physical and chemical structures of tissues as aging progresses.

Bureau of Medical Services

The Bureau of Medical Services provides medical and health services to groups of citizens designated by the Congress as beneficiaries of the Federal Government, conducts clinical research, and maintains training programs for medical and health personnel.

Federal beneficiaries include the American Indians and Alaska Natives, American seamen, personnel of the U.S. Coast Guard and Coast and Geodetic Survey, Armed Forces dependents, Federal prisoners, and others. They receive medical care through Public Health Service hospitals and clinics located on Indian reservations, in port cities, Federal prisons and elsewhere.

The Public Health Service hospitals are prominent among the Nation's primary resources for the training of physicians, nurses, and other health personnel. Clinical research into many aspects of medicine is conducted in these hospitals, including the specific fields of narcotic addiction and leprosy.

The Bureau of Medical Services is also responsible for protecting the United States against quarantinable diseases from abroad, assisting by means of funds, architectural planning, and expert counsel in the construction of community hospitals and health facilities, and for developing the Nation's dental and nursing resources.

Hospitals and Outpatient Facilities

The Division of Hospitals operates a medical care program for an estimated 371,000 persons who are legally entitled to care from the Public Health Service. These include American merchant seamen, officers and enlisted men of the U.S. Coast Guard, officers and crew members of the U.S. Coast and Geodetic Survey, commissioned officers of the Public Health Service, civilian employees of the Federal Government injured in performing their work, active and retired members of the Federal uniformed services and their dependents, and several other groups. Patients with leprosy and narcotic drug addicts as defined by Federal law, are cared for in the Division's special hospitals.

At the end of fiscal 1960, there were 15 Public Health Service hospitals, 25 outpatient clinics, 110 outpatient offices conducted under contract arrangement with community physicians.

The Public Health Service tuberculosis hospital at Manhattan Beach, Brooklyn, New York, was closed June 15, 1960, because the number of patients had been declining for 5 years, while the operating costs had been increasing. At year-end, Public Health Service beneficiaries in the New York area who have tuberculosis were being examined by physicians of the Service hospital on Staten Island to determine whether they would be treated in general hospitals or in the Veterans Administration tuberculosis hospital in West Haven, Connecticut.

VOLUME OF SERVICES

Admissions to the Public Health Service hospitals in 1960 totaled 50,485—an increase of 1.4 percent over 1959. There were 874 babies

born, compared with 720 the year before. The average daily inpatient census declined 2.8 percent, to 4,994; the greatest decrease was among tuberculosis patients. The number of outpatient visits was about the same—nearly 1,185,800.

GENERAL HOSPITALS

Admissions to the 12 general hospitals totaled 45,878. Included were both male and female patients of all ages with a wide range of health problems. These hospitals provide general, medical, and surgical services, and each has an outpatient section. They are located in major port cities—Boston, New York, Baltimore, Norfolk, New Orleans, Galveston, Chicago, Detroit, San Francisco, Seattle—and in Savannah and Memphis.

The patients receive care similar to that given in community hospitals. Among the merchant seamen and Coast Guard members who make up most of the patient census, the five leading causes of admission are: diseases of the digestive system, accidents, diseases of the genito-urinary system, respiratory conditions, and diseases of the bones and organs of movement.

NARCOTIC ADDICTION

The Public Health Service Hospital at Lexington, Kentucky, celebrated its 25th anniversary in May 1960. This hospital and the Service hospital at Fort Worth, Texas, which opened in 1938, are neuropsychiatric hospitals devoted primarily to the treatment of narcotic addiction as defined by Federal law. They also treat persons with mental illness who are entitled to care as beneficiaries of the Federal Government.

In 1960, the two hospitals admitted 4,607 patients, an increase of 6.1 percent. Of these, 4,163 were addicted to the use of narcotics; this was an increase of 4.6 percent over the previous year. The average daily census of 1,915 was almost the same as for the previous year. The census of drug-addiction patients was 1,315—which was 1.3 percent higher than in 1959.

Eighty-seven percent of the patients who were admitted to the two hospitals for treatment of narcotic addiction entered voluntarily, but voluntary patients made up only 37 percent of the average daily patient census. This comparison shows that addict patients who are not required to remain in the hospital usually give up their treatment before they have derived the full benefits from it.

Staff members of both hospitals participated in conferences, workshops, seminars, and meetings concerned with problems of narcotic addiction called by agencies in California, New York, Illinois, Tennessee, and Washington, and gave consultative services in Texas and Kentucky. In November 1959, mental health consultants from

Regional Offices of the Department of Health, Education, and Welfare in San Francisco, Chicago, and New York met at Lexington with representatives of both the Lexington and Fort Worth Public Health Service hospitals, the National Institute of Mental Health, the Office of the Surgeon General, and the Bureau of Medical Services, to exchange information on assistance available to narcotic addicts of community, State, and Federal origin. The urgent need for local post-hospital treatment and follow-up services was a major point of discussion.

The Lexington and Fort Worth hospitals provided extensive orientation and training to more than 50 professional visitors—physicians, public officials, and others—from various States and from Puerto Rico, Brazil, Iran, Belgium, Japan, New Zealand, Scotland, Thailand, and other foreign countries.

LEPROSY

The Public Health Service Hospital at Carville, Louisiana, is a principal center for the treatment and study of leprosy (Hansen's Disease) and for investigation of the many social problems that accompany it.

In 1960, there were 85 admissions to the Carville hospital compared with 62 the previous year. The average daily inpatient census moved slightly upward from 277 to 281.

An epidemiology branch was established and work was started on a national leprosy register. The register will include the more than 2,000 cases admitted in Carville since establishment of the hospital plus other cases known to physicians in the United States; also, identification of the contacts of these cases and the physicians who are keeping them under observation.

A clinic for leprosy patients was opened at the Service hospital in San Francisco. A consultant in leprosy meets patients bi-monthly. X-ray, laboratory, and other services of the hospital are available to them. Their records are studied by the Carville staff by means of inter-hospital communications channels. The clinic also provides follow-up services for West-coast patients who have been discharged from Carville.

At the request of the Secretary of the Interior, the Surgeon General sent a medical team to American Samoa in May 1960 to investigate leprosy. The epidemiologist from Carville and the consultant in leprosy at the San Francisco hospital spent three weeks investigating every known or suspected case of leprosy in American Samoa as well as selected groups of the general population. Tissue specimens and blood samples were still under laboratory analysis when the fiscal year ended.

More than 9,400 persons visited the Carville hospital during the year, including 582 physicians and 542 nurses. They came from 15 States and from Argentina, Brazil, Canada, China, Guatemala, India, Japan, Korea, Malaya, and Mexico. Twenty-four seminars were attended by a total of 586 persons. An outstanding example was the seminar for 29 missionaries of various Protestant denominations.

MEDICARE

The Dependents' Medical Care Act of 1956 authorized the Division's hospitals and clinics to admit active and retired members of the Federal uniformed services and their dependents and the dependents of deceased members of these services. This program, popularly called MEDICARE, has resulted in increased utilization of PHS facilities by these patients each succeeding year. In 1960, MEDICARE inpatient admissions in PHS hospitals increased 6 percent to 15,247; meanwhile their average daily census rose 2.4 percent, to 636. Outpatient MEDICARE visits numbered 413,393, an increase of 8.4 percent. The daily census of PHS patients in hospitals of the Department of Defense averaged 124, while the number of Defense Department beneficiaries in Public Health Service hospitals averaged 268.

TRAINING MEDICAL CARE PERSONNEL

Nearly 300 physicians, dentists, pharmacists, and dietitians took internship or residency training in Public Health Service hospitals in 1960. Ten of the hospitals are approved for postgraduate medical training by the American Medical Association's Council on Medical Education and Hospitals. Residency training is offered in a dozen medical specialties. Nine of the hospitals have American Dental Association approval for internships in dentistry. In Seattle, the hospital has a residency in prosthodontia; on Staten Island, a residency in oral surgery; in New York City, the outpatient clinic has an approved rotating dental residency. The Staten Island hospital provides residency training each year for one graduate student from the Columbia University School of Public Health and Administrative Medicine. This institution is visited annually by students in Columbia's course in hospital administration as the representative Federal hospital in the New York metropolitan area.

Four nurses responsible for inservice training of nurses at Public Health Service hospitals conducted a two-months pilot course in cardiovascular research methods and techniques, at the Clinical Center of the National Institutes of Health. The experience gained was studied to establish guidelines for future programs of research training for nurses in other clinical specialties.

Through the hospitals' various affiliations with colleges and technical schools, more than 100 undergraduates obtained practical ex-

perience and clinical instruction in physical therapy, occupational therapy, vocational therapy, social service, medical technology, and dental hygiene. The hospital on Staten Island continued to provide the clinical nursing portion of the training course for hospital corpsmen given by the U.S. Coast Guard.

CLINICAL INVESTIGATIONS

Clinical and basic research conducted in Public Health Service hospitals includes both individual projects and inter-hospital investigations. A number of studies are associated with research activities of outstanding medical institutions, such as the Tulane University and Stanford University medical schools.

Staten Island, New Orleans, and San Francisco Public Health Service Hospitals have full-time directors of research, trained in leading university laboratories. Four other Service officers received similar training in 1960.

The 1960 appropriation act for the Department of Health, Education, and Welfare authorized Public Health Service hospitals to obtain research grants from the National Institutes of Health on the same basis as non-Federal institutions.

The Baltimore, Norfolk, New Orleans, San Francisco, and Staten Island hospitals are cooperating in a three-year study of effectiveness of various drugs in treating essential hypertension. NIH grants totaling \$154,000 have been approved for this research.

PROGRESS IN ADMINISTRATION

Management appraisal surveys were conducted at the hospitals in Galveston and on Staten Island. These included observation and evaluation of current operating methods.

On the grounds of the Carville hospital ten new cottages for married patients were built, and two dormitories were converted to apartments. Ten new staff quarters were also completed, and extensive renovations were made to the gate house and the administration building.

FEDERAL EMPLOYEE HEALTH PROGRAM

The Federal Employee Health Program aims to promote and maintain health and well-being among Federal employees. It plans and conducts activities encompassing public health, preventive medicine, and emergency medical care. Health units are operated on a reimbursible basis, for Federal agencies requesting this service. The medical care activities of the program are carried on in cooperation with employees' private physicians.

In 1960 three new health units were added, bringing the total to 32; these serve more than 53,000 employees located in 128 Federal agency programs. The number of physicians in the health units was in-

creased from 10 to 17. There were 1,753 physical examinations given Federal employees over the age of 40, as compared with 348 in 1959.

All employees served by the 32 health units may receive poliomyelitis and influenza immunizations at minimum cost without leaving their offices for more than a few minutes. From January through June 1960, approximately 20,000 polio immunizations were given 11,000 individuals. In the same period, almost 3,000 influenza immunizations were given. More than 2,000 immunizations for Rocky Mountain Spotted Fever were given in endemic areas, also 250 tetanus immunizations in places where there was unusual hazard. Vision tests and glaucoma tests were offered through all health units. Plans were completed to offer diabetes detection tests in 1961.

FREEDMEN'S HOSPITAL

In addition to operating the Public Health Service hospitals, clinics, and outpatient offices, the Division of Hospitals also supervises the administration of Freedmen's Hospital, a general medical and surgical hospital in Washington, D.C.

There were 13,945 patients admitted to Freedmen's Hospital in 1960, slightly more than in 1959. The average daily inpatient census declined from 362.4 to 352.9, reflecting a small decrease in the average stay. Outpatient department visits declined from 97,298 to 95,414. The number of long-term patients was fewer than in previous years. Nevertheless the hospital experienced serious crowding at several periods of the year, especially in the medical and obstetrical departments.

All training accreditations were maintained. The hospital served as the clinical teaching center for juniors and seniors of Howard University's College of Medicine. It also gave approved internship and residency training, and conducted approved teaching programs in nursing and X-ray technology.

A total of 47 residents received advanced training in the departments of medicine, surgery, neuropsychiatry, obstetrics and gynecology, and pediatrics. There were 7 medical interns, 2 dental interns, and 9 research fellows.

Twenty-seven students were graduated from the Freedmen's Hospital School of Nursing, bringing the total number of graduates to 1,401. Ten dietetic interns, two pharmacy interns, and eight students of X-ray technology completed training.

More than 50 clinical research projects were in progress at the hospital, and some 40 scientific articles by staff members were published or were in preparation.

The hospital's pressing need for better facilities grows more acute as time goes by. It has become increasingly difficult to give medical

care and to conduct teaching programs acceptably in facilities no longer equal to the demand for modern services.

Foreign Quarantine

So long as significant outbreaks of infectious diseases are still occurring in other parts of the world, our Nation cannot be complacent about its freedom from outbreaks of quarantinable diseases. The speed and volume of traffic to the United States from abroad is constantly increasing. There is always a chance, therefore, that cases of contagious disease may enter the country. To prevent this, personnel of the Division of Foreign Quarantine stand vigilantly on guard at all ports of entry.

The last outbreak of quarantinable disease in this country known to have originated in international traffic was the smallpox outbreak in New York City in 1947. Since then, a few persons infected with this disease have been intercepted at the ports by Foreign Quarantine personnel.

Smallpox continued to challenge international quarantine control in 1960. It occurred in about 60 international airport and seaport cities of 21 countries. The most serious outbreak was in Moscow where 11 cases were reported including one brought in from the Far East. The disease was confined to the city by means of a mass vaccination program and the requirement that all persons entering Moscow have recent vaccination. Explosive outbreaks of smallpox occurred also in newly established countries of Africa, particularly in port areas. Epidemics were reported by several countries of central Africa. The disease remained endemic in countries of the Far East and a few countries of South America. A few cases were reported aboard ships.

Yellow fever reappeared in the Sudan for the first time in several years; more than 100 cases were reported. The disease also spread into adjacent provinces of Ethiopia and the Belgian Congo. Another major outbreak of yellow fever occurred in a new agricultural area of La Paz Department, Bolivia. Sporadic cases occurred in Ghana, Nigeria, Brazil, Colombia, Peru, and Venezuela.

Cholera epidemics continued to be confined to countries of the Far East. Fewer cases were reported than in previous years. Most recently cholera reappeared in Akyab, Burma. An epidemic in Thailand lasted 17 months, ending in October 1959.

The international seaports and airports of the world remained free of plague. The disease was still present in rats and other rodents in some areas of the Americas, Africa, and Asia, and spread to the human population in several instances. Outbreaks of human plague

were reported by Indonesia, Southern India, Vietnam, Ecuador, and Peru. Countries of Africa reported sporadic cases.

In the United States, five cases of plague were reported. One, laboratory-acquired, was in Maryland; four were in the West and Southwest. None was significant to international traffic. Immediate field investigations in an affected area in New Mexico revealed an epizootic that first decimated the wood rats and then spread to rabbits and possibly other hosts. Further field investigations are being made. The increase in cases during the year and the growth and movement of population in the United States suggest the need for comprehensive field studies of sylvatic plague.

Sporadic cases of louse-borne typhus were reported in several ports of Africa, Asia, and South America. The disease was present also in Mexico.

Louse-borne relapsing fever is endemic in Ethiopia. More than 8,000 cases were reported in calendar year 1959, nearly double the number reported in 1958. Single cases were reported in Tunisia, the Belgian Congo, Nigeria, Somaliland Protectorate, Bolivia, Peru, Cyprus, Turkey, and Afghanistan.

NONQUARANTINABLE DISEASES

The Public Health Service, the U.S. Department of Agriculture, and State and local health authorities in Texas were concerned with protecting against introduction of anthrax from Mexico. A significant outbreak of anthrax occurred in cattle in Matamoros, Mexico. Five human cases were reported there; the infections were mild, responding to antibiotics. A problem was presented by the fact that residents of Brownsville, Texas, often buy meat in Matamoros. The Service was informed that anthrax had also occurred in 1959 in a herd of cattle brought into Brownsville from Matamoros, and that four persons contracted anthrax from direct contact with the infected cattle. These cases were successfully treated.

An outbreak of Japanese B encephalitis in Korea subsided in October 1959, primarily because of cooler weather. Ten provinces reported 1,886 cases and 521 deaths from July 30 to October 7.

Nigeria reported a major epidemic of meningitis (meningococcal)—the first in a decade; up to April 24, 1960, there were 33,470 cases and 2,320 deaths reported. About 35 to 40 percent of the cases were in children. The disease was controlled through treatment and isolation of patients by mobile health teams under direction of four physicians.

INTERNATIONAL TRAFFIC

In calendar year 1959 more than 7 million persons from the United States traveled in other countries. The risk of introduction of disease by this moving population is reduced by vaccination of travelers

before they leave home. Vaccinations required and recommended for international travelers are stated in the Public Health Service booklet "Immunization Information for International Travel."

In the 1960 fiscal year inspections of aircraft for quarantine or immigration-medical purposes continued in about the same volume as in the preceding year—70,383 in 1960 compared with 70,607 in 1959. The increased use of jet aircraft, with greater passenger capacity, was evidenced by a 16.4 percent increase in quarantine inspections of persons arriving by air, from 1,859,843 in 1959 to 2,165,664 in 1960. Inspections of ships decreased slightly, from 33,271 in 1959 to 33,180 in 1960. Quarantine inspections of persons arriving by ship increased from 1,955,760 to 1,967,997.

Travelers subject to quarantine inspection arriving in the United States by all modes of travel, including land entry from the interior of Mexico, decreased slightly, from 5,264,354 in 1959 to 5,186,789 in 1960. This change was accounted for by a decrease in inspections of persons arriving by land from the interior of Mexico from 1,448,751 to 1,053,128. It was necessary to detain only 37 persons in isolation in 1960, compared with 607 in 1959. The number of persons who were allowed to continue to their destinations in the United States, but were subject to medical supervision for a time, was 54,459 compared with 117,310 in 1959.

MEDICAL EXAMINATIONS

General program.—The downward trend during 1958 and 1959 in number of aliens examined by medical officers abroad was reversed in 1960. The number of alien applicants for visas who were examined increased from 155,068 in 1959 to 173,402 in 1960. Those examined were, as before, mostly immigrants. Aliens examined on arrival at United States ports increased 10.3 percent, from 2,669,768 in 1959 to 2,945,264 in 1960. Of the aliens examined abroad, 1,602 were found to have diseases or conditions excludable under the immigration law. Among those examined at ports in this country 2,331 were found to have excludable diseases or defects; many had been so diagnosed abroad, but were admitted under special provisions of the immigration law.

At the close of 1960, Korean orphans immigrating to the United States under the sponsorship of a prominent agent were arriving properly attended and in good condition. Earlier, many Korean orphans arrived here in a poor condition of health, suffering from malnutrition, enteritis, pneumonitis, scabies, impetigo, or other illness; in a few instances, they died on their way to this country or soon after they arrived. This situation has been corrected, as the result of conferences of division personnel with the State Department and with a physician representing the sponsoring agent, and

by field visits of the division's medical examiner from Hong Kong.

Immigration of aliens with tuberculosis.—The immigration of certain aliens who have tuberculosis continued for the third year under Public Law 86-253 (amending Public Law 85-316). Under this law, quarantine officers abroad examined 400 aliens with confirmed or suspected tuberculosis during the year, compared with 1,073 in 1959; 794 aliens were placed under health controls after arrival in the U.S., compared with 1,445 in 1959.

Migratory farm labor.—In the program of recruiting agricultural workers from Mexico, 431,631 laborers were examined, with 7,033 rejections, at three migratory centers in Mexico; 477,710 examinations were made, with 5,114 rejections, at five border reception centers in the United States.

At the reception centers 438,493 serologic tests for syphilis were made (an increase of 29.3 percent over 1959), and 21,776 positive reactors were detected. The rate of detection of positive reactors decreased from 61 per thousand laborers tested in 1959 to 49.7 per thousand in 1960, indicating the result of treatment given in the program.

YELLOW FEVER RECEPTIVE AREAS

American Samoa, the Trust Territory of the Pacific Islands, and the Ryukyu Islands were added to the yellow fever receptive area in territories for which the United States is responsible. Action was begun to remove the following from the yellow fever receptive area: Arizona, New Mexico, Oklahoma, and the part of Texas west of a line from Del Rio to Wichita Falls; this decision was based on the fact that no *Aedes aegypti* mosquitoes—which can carry the disease—have been found in these areas in recent years.

ENTOMOLOGY PROGRAM

The program for controlling the yellow fever mosquito (*Aedes aegypti*) was carried into nearly 150 international traffic areas in the South, along the Mexican border, and in Puerto Rico and the Virgin Islands. Results were favorable.

Insecticide resistance studies were undertaken at Miami and New Orleans, using laboratory-reared *Aedes aegypti* larvae. The Miami studies showed evidence of slight tolerance to DDT. Other insecticides are used in the control program.

Many species of mosquitoes and other insects of medical importance on aircraft and on ships arriving in this country were intercepted by quarantine personnel. Insecticides were applied to a large number of these conveyances.

OTHER QUARANTINE ACTIVITIES

Standard aircraft quarantine procedures were instituted, providing for simplification of inspections at airports. Emphasis was placed on

measures affording greatest protection against bringing in disease, with minimum interruption of international traffic. The Air Transport Association of America commented: "Your new procedures will enable the United States to demonstrate an effective quarantine facilitation program essentially based on efficient management practices."

Effective June 10, 1960, the Surgeon General added Jamaica to the quarantine-exempt areas. This action was based on a study by personnel of the Division of Foreign Quarantine and the Communicable Disease Center.

Measures were taken to have adequate immunity maintained by persons working in airport and seaport areas whose occupation brings them in contact with traffic from abroad. Quarantine officers asked the cooperation of local health authorities in emphasizing the importance of current immunization. Among those for whom small-pox vaccination every 3 years was recommended are personnel of Federal inspectional services, airline employees, taxi drivers serving airports and seaports, and personnel of hotels and hospitals in cities where international airports or seaports are located. Yellow fever vaccination every 6 years was recommended for persons who may deal with planes or ships arriving from a yellow fever infected area.

Quarantine service on the Mexican border was strengthened by extension of inspection coverage from 922 to 2,110 hours per week. Higher standards were adopted for appointment of inspectors, and an intensive staff training program was begun.

The position of epidemiologist for the European area was established, and the Public Health Service medical officer stationed at the U.S. Embassy in London was given this additional duty. The purpose is to effect liaison with foreign health authorities on problems concerning unusual occurrence of communicable disease, and to assist in a sound approach to related quarantine measures in this country.

Principal Domestic Field Offices were established in El Paso (centralizing responsibility for activities along the entire Mexican border) and in New York (centralizing responsibility for activities from Chicago to Norfolk).

Progress in Indian Health

The first Public Health Service hospital for Indians was dedicated on May 21, 1960, at Shiprock, New Mexico.

Shiprock Hospital signalizes the constantly improving health services given Indians and Alaska Natives by the Public Health Service as well as the increasing effort of American Indians to improve their own health and living conditions.

Major emphasis in the Indian health program in 1960 was placed on improving the quality of health services available to the Indian people. Medical care and preventive health services were provided in hundreds of facilities located as close as practicable to the homes of the widely scattered peoples.

To meet the needs of about 342,500 Indians and 37,500 Alaska Natives (Aleuts, Indians and Eskimos) the Division of Indian Health operates a far-reaching health program. This program provides essential services through its 52 hospitals, 23 health centers, 20 school health centers, and field clinics at almost 300 locations. In addition, hospital and medical services through community sources are financed by the division by means of contracts with private physicians, dentists, non-Federal hospitals, and State and local agencies.

The year 1960 was the fifth since the transfer of the Indian health program from the Bureau of Indian Affairs to the Public Health Service. The following accomplishments are noteworthy.

The passage of Public Law 86-121, Indian Sanitation Facilities Act, in July 1959 and the authorization of \$200,000 to put it into effect, made possible the initiation of 39 emergency community environmental sanitation projects. Twenty-nine of these were completed within eight months.

A village clinic program was begun in Alaska. For the first time, medical officers, accompanied by public health nurses or technicians conducted regular monthly one-to-three-day clinics in 18 villages. They also visited many other villages enroute, thereby making medical care available to about 10,000 Alaska Natives in all. In this way the division was able to increase preventive health services, intensify case-finding, and provide treatment for acute medical problems, in isolated areas hitherto seldom visited.

Two custom-made dental trailers, completely equipped and entirely mobile "offices on wheels," were placed in operation in the Albuquerque and Phoenix areas, to extend the horizon of dental health services, particularly to children.

The ever-increasing understanding and acceptance of modern health and medical care by Indians themselves was evident during the year.

GENERATIONS OF NEGLECT

A backlog of disease and disability accumulated through generations of neglect poses formidable problems for the staff of the Division of Indian Health. The majority of Indians still live in isolated circumstances. Most of the reservations and villages are remote, sparsely settled, and hard to reach. Health resources and services taken for granted by most of the U.S. population are not readily available to Indians.

Death rates from such preventable diseases as gastroenteritis, influenza, pneumonia, and tuberculosis run up to eight times higher than in the general population. Water supplies, which are often polluted and generally are inadequate for domestic needs, frequently must be hauled for long distances. Infant deaths have always been excessive: deaths occur among Indian infants during the first year of life at twice the rate of that for other babies born in the United States. Accidents in and around the household take considerable toll. Over-crowded, substandard housing, dietary deficiencies, lack of opportunity to learn or practice the simplest basics of personal hygiene or community health protection—all contribute to poor health and the high death rate.

IMPROVED THERAPEUTIC SERVICES

Perhaps the most impressive health success story of recent time among Indians concerns tuberculosis. Once the principal cause of death, tuberculosis now ranks eighth. There has been a continuous decline in the number of deaths and a reduction in morbidity. During 1960, the average daily census of tuberculosis patients in Indian hospitals fell almost 20 percent.

The upward trend in general patient admissions continued, with an increase of nearly 5 percent over 1959. The total of almost 77,000 hospital admissions set another all-time high.

Births in Indian hospitals increased more than 500 over 1959, to a total of 8,330. Increasing numbers of Indian mothers now seek modern medical and hospital care.

A greater quantity and a higher quality of direct pharmacy services were provided by 41 pharmacists assigned to 31 Indian hospitals and 2 health centers. Well over 80 percent of the inpatients and more than half of the outpatients served by Public Health Service Indian health facilities benefited from this improved function.

Though the number of nurses available in 1960 was still too small to meet all the nursing needs, improvement was made. There was a gain of 102 professional nurses. Eighty-eight were assigned to hospitals, 2 to public health field stations, and 12 to clinics, outpatient services, and schools.

The social workers of the division devoted the greatest proportion of their time to children's problems and to assisting the handicapped and chronically ill. Increased emphasis was placed on broader participation in community programs and on cooperative planning with public and private social agencies.

Bearing directly on improvement in quality of services was the training given to young Indian people who are interested in participating as workers in the health program. In 1960 the two schools of

practical nursing, at Albuquerque, New Mexico, and Mount Edgecumbe, Alaska, graduated 74 students, who were assigned to positions to Indian health facilities. Inservice dental assistant training at Mount Edgecumbe and the Intermountain School, Utah, was given to 20 young Indians. Two dental assistants received training at Owyhee, Nevada. Nineteen sanitarian aides were graduated from the basic inservice course offered at Phoenix, Arizona; 9 received refresher training at Fairbanks, Alaska; and 14 completed advanced training at Window Rock, Arizona.

IMPROVED PREVENTIVE HEALTH SERVICES

A continuing cooperative research project with the National Institutes of Health is expected to provide long-needed information about the nutritional status and dietary intakes of children. Plans were made for additional research of this nature in 1961.

Much remains to be done in the field of mental health. The mental health demonstration project of the Division of Indian Health and the Bureau of Indian Affairs at the Flandreau Indian Vocational High School in South Dakota, in which the National Institute of Mental Health also participates, developed two major efforts during the year. Primary effort was directed toward maintaining and expanding individual and group services to emotionally disturbed students. The second effort centered on providing basic data for a continuing study of mental health problems at the school.

Notable progress has been made against trachoma, an eye disease that can cause blindness. Under the direction of an internationally recognized trachoma expert, the virus has been isolated and grown. Since trachoma is rarely seen in medical centers, every physician entering the Indian health program was given help in recognizing trachoma in its early stages so that cases could be found and treated before irreversible changes in the eyes took place. Division personnel in the Southwest reported that treatment of trachoma victims was resulting in a cure rate of 85 to 90 percent. The Trachoma Manual and Atlas, published by the division in 1958, was revised in 1960 because of worldwide interest in the subject.

Closely coordinated liaison among Federal, State, and local health agencies was responsible for improved use of community health resources to serve Indians. Activities to assure continued construction of community hospitals, under terms of Public Law 85-151, for joint use by Indians and other patients, were strengthened. Under this law, the Public Health Service is authorized to participate financially in construction of such community facilities.

Because of the declining number of tuberculosis patients, hospital services were discontinued at the PHS Sanatorium in Tacoma, Washington. The few remaining patients from Washington, Alaska,

Montana, Oregon, Idaho, and other States were returned to hospitals closer to their homes. Inpatient care at the Cheyenne Agency in South Dakota was suspended because of the flooding of all homes, buildings and roads in the area by Army engineers developing the Missouri River Basin project. The health facility that had been there was replaced by a new 30-bed hospital at Eagle Butte, built by the Corps of Engineers.

DENTAL SERVICES

Major attention in 1960 was directed toward dental services for the children of school age and younger. The goal is to prevent or minimize the accumulation of dental defects and infections such as is now present in the adult Indian population as the result of years of neglect.

Contract dental care was expanded to provide better dental services where direct service is less practicable. Two hundred private dentists under contract in 1960 provided treatment for 5,180 patients. Corrective dental health services were given to 72,000 persons at 78 regular clinic locations and more than 200 temporary locations. The division's dental staffs handled nearly 160,000 visits.

The dental trailers put into use in the Albuquerque and Phoenix areas made it possible to bring dental services into localities where the Indian children have never had the benefits of examination and treatment.

In Alaska, dental service was greatly improved. Thirty-three villages were visited by dental staff teams, who stayed from a few days to a month. Again the greater part of the service was directed toward children; emergency care was given for all ages. Dental health conditions in villages visited were found to be deplorable. There is acute need for further expansion of dental health services for Natives in the Alaska villages.

ENVIRONMENTAL SANITATION

On July 31, 1959, the President approved Public Law 86-121, the Indian Sanitation Facilities Act, which clarified and extended the authority of the Surgeon General of the Public Health Service with regard to aid to Indian tribes and Alaska Natives for construction of domestic and community sanitation facilities. An appropriation of \$200,000 was made in the fall of 1959. The Division of Indian Health immediately programmed 27 projects to overcome emergency water supply problems in Indian communities in ten States. Additional emergency projects were undertaken later. Of the 39 projects started, 29 were completed by June 30, 1960. This work was accomplished with the full cooperation of the Indian people, who contributed many hours of volunteer labor and agreed to take responsibility for operating and maintaining the completed projects.

The Indian Tribes cooperated more fully than ever before in the activities of sanitarian aides. Indians trained in the basic elements of sanitation and educational techniques, through visits, demonstrations, and technical assistance, helped with the education of their own people in health and sanitation practices in the home and community. The aides received professional guidance from engineers and sanitarians. In Alaska, this program was carried out in 25 Native villages under contract with the Alaska Department of Health and Welfare.

The division supported special studies, at the PHS Arctic Health Research Center in Anchorage, Alaska, on practicable facilities for water supply and waste disposal in Native villages and on improving methods of curing fish and protecting food.

PROGRESS TOWARD NEW AND IMPROVED HEALTH FACILITIES

New hospitals were opened at Shiprock, New Mexico, and Eagle Butte, South Dakota. The Shiprock hospital, dedicated in May 1960, is a modern 75-bed health facility. Built at a cost of nearly \$1.7 million, it integrates inpatient and outpatient services with all phases of public health activities. The Eagle Butte hospital with 30 beds, replaced an outmoded structure. It was built by the Army engineers and opened for patients in March 1960.

Construction of a new 200-bed regional hospital and medical center at Gallup, New Mexico, and a new 50-bed health facility at Sells, Arizona, neared completion. The procurement of equipment and the selection and assignment of staffs were beginning as the fiscal year ended.

Construction was started on new hospitals at Kotzebue, Alaska, and Keams Canyon, Arizona.

Major modernizations of the hospitals at Rosebud and Pine Ridge, South Dakota; Browning, Montana; and Whiteriver, Arizona, were nearing completion. Alterations and additions were completed at several hospitals including those at Santa Fe, New Mexico; Sacaton, Arizona; and Fort Belknap, Harlem, Montana.

The critical shortage of housing for the physicians, nurses, and other members of the staffs was being alleviated by the construction of 88 new permanent housing units, from fiscal 1960 funds totaling \$2.5 million.

COOPERATION WITH STATES AND COMMUNITIES

Joint planning with State agencies was consistently the method used to stimulate the fullest possible participation of Indians in State and community life. Ten major meetings resulted in working agreements with the departments of health concerned. It will soon be possible for American Indians and Alaskan Natives to obtain conveniently located and markedly improved health services throughout their immediate and adjacent areas.

Hospital and Medical Facilities

Out of the recent appraisal of the Hospital and Medical Facilities construction program—now in its 13th year—has come abundant evidence of the need for long-range, community-wide, as well as State and National planning.

Hospitals and other health facilities are built to serve generations of patients. Structural durability is essential. Structural adaptability is even more important. Today, when a community, or a group of public-spirited citizens, plans a general hospital, they must consider the changing requirements of modern medicine; for example, possible treatment in the general hospital for patients with tuberculosis or mental illness; increasing preventive medical services for persons of all ages. In addition, consideration must be given to coordination of hospitals with other community health service, such as welfare agencies, rehabilitation and home care services.

In recognition of these factors, the Division of Hospital and Medical Facilities was instrumental in establishing several special planning committees. The guidelines and principles they lay down are expected to (a) stimulate more accurate planning and coordination of health facilities, and (b) provide increased national leadership in planning.

The committees are concerned both with medical facility planning and with hospital research. Some are sponsored in collaboration with other agencies and professional associations. They are at work on such problems as planning coordinated areawide health facilities and determining the facility needs of the mentally ill and the tuberculous.

In addition, a number of studies and surveys were conducted by the Division covering a wide range of subjects—investigations of various aspects of "Progressive Patient Care," a study of representative medical schools in connection with developing architectural guide material, an examination of modernization needs of the Nation's health facilities, an analysis of national goals for health facility construction, a study relating to the collection of uniform hospital data, and studies leading to the development of a hospital prototype that will give maximum protection from fall-out.

PROGRESSIVE PATIENT CARE

In ever-increasing numbers, hospitals are adopting one or more of the elements of "Progressive Patient Care"—a concept whereby patients are grouped according to the degree of their illness rather than type of illness. Studies have been initiated to determine: (a) The number of beds which should be allotted to intensive care, intermediate care, and self-care units in hospitals; (b) the costs in the various units; (c) the differing organizational patterns in teaching hospitals,

fulltime staff hospitals, and departmentalized hospitals; (d) the patient's acceptance of the pattern of care given in intensive care units; and (e) the effect of intensive care on the incidence of complications in certain diseases.

MEDICAL SCHOOL STUDY

In collaboration with the Division of Public Health Methods, the division began a study of medical school facilities, as requested by a committee appointed by the Association of American Medical Colleges. Public Health Service representatives surveyed typical medical school facilities throughout the Nation. Findings will be used as a basis for guide material on requirements for medical school facilities.

MODERNIZATION NEEDS OF HOSPITALS

A nationwide survey by the division showed that \$3.6 billion would be required for needed modernization and replacement of general hospitals, public health centers, and State-owned mental hospitals.

FALLOUT-PROTECTED HOSPITAL

Under a contract with the Office of Civil and Defense Mobilization, the division developed a 150-bed model hospital which will offer structural protection against fallout in case of nuclear attack. An exhibit and a publication were prepared to show the details.

CHANGING NEEDS AND EMPHASIS OF PROGRAM

Considerable progress has been made in the construction of general hospital beds and facilities. State agencies report that 79 percent of the need for general hospitals was met in 1960 as compared with 77 percent during the previous year and 59 percent in 1948 when State records first became available. On the other hand, there is still a great shortage in long-term care facilities. The lack of chronic disease hospitals continues to be the Nation's greatest gap in health facilities. Only 15 percent of the need has been met. The second greatest need is the nursing home. Only 40 percent of the Nation's requirements for nursing homes has been met.

According to State plans on January 1, 1960, 845,000 additional beds in all types of hospitals were still needed. In addition, 257,000 additional beds in nursing homes were needed for skilled nursing care.

Population growth, the increased need for medical and nursing care of the aging and chronically ill, the increased demand for hospitalization from all age groups, and the obsolescence rate of hospitals tend to offset the progress of new construction in narrowing the gap between beds available and beds needed.

SCALE OF OPERATIONS

As of June 30, 1960, some 5,200 Hill-Burton projects had been approved for Federal assistance. The total cost was estimated at \$4.4 billion, of which the Federal contribution was \$1.3 billion. There were 3,564 projects, providing 149,898 beds, complete and in operation; and 1,350 projects, to provide 56,882 beds, under construction. The remaining 285 projects were in the preconstruction stage; these will provide 12,480 beds. A grand total of 219,260 hospital beds and 1,453 health units for outpatient care will be available as a result of these projects.

The majority of applications approved in this program are for general hospitals. As of June 30, 1960, 62 percent of the projects were general hospitals adding 173,213 beds; 3 percent were mental hospitals adding 15,558 beds; 1 percent, tuberculosis hospitals adding 7,404 beds; 3 percent, chronic disease facilities adding 10,031 beds; 5 percent, nursing homes adding 13,054 beds; and 16 percent were public health centers and State health laboratories; 7 percent, diagnostic centers; and 3 percent, rehabilitation centers.

Dental Resources

The continuing decline in the number of dentists in relation to population is a serious challenge to the Nation's health. If the dental care which the population of the future will demand is to be provided, it will be necessary to halt this decline and develop an adequate number of dentists to meet the demand.

National leadership in efforts to solve the dental manpower problem has been the responsibility of the Division of Dental Resources, and all its activities have been directed toward that goal. Statistical studies have estimated future manpower requirements. Research and experimentation in dental education and technology have been conducted to find ways to improve the dental student's training and increase his skills and productivity as a practitioner. Advisory and information services have encouraged the development of voluntary dental prepayment plans that enable more people to purchase regular dental care.

ASSESSING MANPOWER REQUIREMENTS

Knowledge of the active dental force, its size and distribution is essential in manpower planning. A series of regional surveys published by the division to provide long-term analyses of trends in manpower requirements and supply have stimulated programs of dental school expansion and construction.

"The Dental Profession in the Midwest," the fifth regional study, was prepared for publication in 1960. A survey of the Middle Atlantic States, which will complete the series, was initiated. The regional surveys form the basis for a project that will estimate national dental manpower needs through 1980.

INCREASING UTILIZATION OF AUXILIARY PERSONNEL

An announcement that the American Dental Association and the American Association of Dental Schools would sponsor a conference on utilization and training of dental assistants in the fall of 1960 brought national recognition to the division's experimental work in dental education.

Employment of auxiliary dental personnel, such as the chairside assistant, is an effective method of expanding available dental services, because it enables the dentist to treat more patients. The chairside assistant project instituted by the division in six dental schools in 1956 seeks the most effective method of teaching dental students to work with assistants. At an evaluation conference in January 1960, representatives of these schools unanimously recommended that the training be given to every dental student.

Related projects undertaken during the year were directed toward increasing the supply of qualified dental assistants. Production was begun on a motion picture which will be used in recruitment of dental assistants. Experimental programs designed to establish a standard training course for chairside assistants were planned, under agreements signed with four educational institutions: University of New Mexico; Boise (Idaho) Junior College; Montgomery Junior College, Takoma Park, Md.; and Kirkman Technical High School, Chattanooga, Tenn.

FINANCING DENTAL CARE

Establishment of voluntary prepaid dental care programs and budget payment plans is effectively lowering the cost barrier that prevents potential patients from obtaining the care they need. To encourage development of such programs, and the resulting increased use of dental services, the division has served as an advisory and information center on dental care economics.

In 1960 the division published studies describing the history, operating methods, and extent of utilization of three plans: (1) A program of dental care for public assistance beneficiaries offered by the Washington Dental Service Corporation; (2) a budget payment plan developed by the Kanawha Valley, West Virginia, Dental Society; and (3) the dental care program of the St. Louis Labor Health Institute of the International Brotherhood of Teamsters. In addition, a glossary of terms used in dental prepayment was compiled and widely distributed.

Continuing projects included the collection of data on utilization of services in a privately operated dental clinic and in a dental maintenance care program developed by a union.

TECHNOLOGICAL ACTIVITIES

Dentists of the division continued to conduct dental examinations for the National Health Survey. The index for measuring dental malocclusion which the division developed was among the epidemiological examination procedures tested in a research project in Idaho. A committee of representatives of the American Dental Association and the American Association of Dental Schools was established to work with the division in a study of space and equipment requirements of dental schools.

Nursing Resources

In the fall of 1959 and the spring of 1960, 13 Pennsylvania hospitals completed studies of their nursing personnel at work. Meanwhile in the Middle West, three hospitals in Indianapolis concluded similar studies of their nurses' activities. At about the same time on the West Coast, plans began for 10 hospitals in San Francisco to study nurse utilization in their day-to-day operations. Several hospitals halfway round the world in Delhi, India, made the initial move toward conducting the first nursing activity studies in their country.

For each of these studies, a consultant of the Division of Nursing Resources played a leading role by teaching the method of studying nursing activities which the division has developed. Staff members of the participating hospitals learned how to observe, record, and analyze what professional nurses, practical nurses, and nursing aides actually do in their specific hospital settings.

A division consultant spent three months in India under auspices of the International Cooperation Administration, assigned to assist the Indian Nurses Association in a survey of the nation's nurse supply. By invitation of the association, she also spent part of her time teaching the study method to the staffs of several hospitals in Delhi.

The division's study method continued to show its worth in dollars saved and in increased time spent by nurses in direct care of patients. Repeatedly, studies of this kind have clearly revealed that numerical shortages of nurses, although still great for the Nation as a whole, are more apparent than real in some situations. When nurses are relieved of non-nursing duties, often there actually are enough nurses with time enough to meet the needs of all their patients.

SCOPE OF DIVISION ACTIVITIES

To improve further and increase the kind and amount of nursing that patients receive, the division provides consultation to States,

hospitals, professional organizations, and other agencies and groups working to meet community health needs. The division's staff consultants carry out studies of major problem areas in nursing. Considerable effort is devoted to stimulating extramural research of importance to nursing, and to motivating capable nurses and other professional people to pursue careers in nursing research. The professional nurse traineeship program has been extended and expanded. Consequently, the number of nurses adequately trained for positions of leadership has thus been increased.

A nurse consultant of the division served on the faculty of the Second International Seminar on Nursing Research sponsored by the International Council of Nurses in Delhi, India, in the spring of 1960.

ASSESSMENT OF NURSING NEEDS

During the year Kansas completed a survey of its nurse supply, thus joining a long list of other States that have made such surveys with the assistance of the division. Mississippi received consultation in a resurvey of nurse supply. Massachusetts was completing a survey.

In Kansas, the present deficit was estimated at about 1,800 professional nurses. Further, it found that an inordinately large proportion of nurses holding leadership positions—ranging from 42 to 100 percent in all categories of nursing—were not adequately prepared for their jobs.

In all, more than 200 large hospitals have now received assistance to conduct nursing activity studies. A 16mm sound filmograph, "How to Observe Nursing Activities," developed in 1959, has been helpful in extending the use of the activity study technique. Efforts were continued to determine how this technique can be more effective in hospitals of less than 50 beds.

The division attempted to provide all possible assistance with a relatively small staff of nurse consultants. A major need is to provide more follow-up consultation on activity studies. Only by follow-up can the assistance be provided that hospitals need in order to act on their study findings and insure the use of professional nursing skills at the patient's bedside. So far, it has not been possible to meet fully all requests for initial assistance and for follow-up consultation.

PART-TIME NURSES

In cooperation with the American Hospital Association, the division began a study to find answers to the following questions: How much nursing is done by professional nurses employed part-time? Do they continue working part-time in the same hospital for many months or years? Or do they serve part-time in first one hospital

and then in another? How much of a contribution do they make?

The division first sought information on part-time staff nurses from several hundred general hospitals throughout the Nation. It then planned to obtain directly from nurses who are employed part-time more detailed information by questionnaire.

EMOTIONAL NEEDS OF EXPECTANT MOTHERS

Public health nurses on the staffs of local health departments routinely work with young married women expecting their first babies; they see the expectant mothers either in the health department's prenatal clinics or during regular home visits. How sensitive are these nurses to the emotional needs of young expectant mothers? Are the nurses enough aware of the symptoms that augur present or future emotional problems requiring specialized help?

A nurse consultant in mental health assigned to the division has been directing an exploratory study designed to answer these questions. The study is also intended to determine whether a relationship exists between the public health nurse's sensitivity to emotional symptoms and selected personal characteristics of the nurse herself.

OTHER STUDIES IN PROGRESS

A study was being developed to find out the nursing needs of small hospitals. The number of small hospitals throughout the Nation has steadily increased; they differ from large hospitals in various ways. The study is planned to be primarily descriptive in nature. It is expected to provide valuable information for future work with small hospitals and their staffs.

Progress was made on a study of the characteristics of nursing supervisors. Another deals with the career goals of high school students.

Work was completed on a study designed to measure the change of attitude among nurses toward their profession. Comparative data were obtained on a small group of nurses during their senior year as students and later during their active practice of nursing.

RESEARCH GRANTS AND FELLOWSHIPS

The division continued to stimulate research having importance for nursing, as part of its programming responsibilities for extramural nursing research projects and fellowships. Increasing emphasis was placed on research in clinical nursing. Efforts were directed toward stimulating the kind of training researchers need to conduct clinical nursing studies.

Research projects approved in 1960 are concerned with various aspects of nursing care; the changing role of nurses as scientific and technologic advances are applied to patient care; adequacy of nursing education for the nurse's changing role; and other allied subjects.

Forty-one research grants were awarded, compared with 37 in 1959. These represented investments of \$1,208,300 and \$976,300, respectively, in the improvement of nursing service.

Expansion of the research fellowship program was even greater, making it possible for more nurses to prepare for careers in research. Full-time fellowship awards were made to 43 nurses in the amount of \$197,700, compared with 16 fellowships totaling \$70,000 in 1959. Awards for part-time study were made to 36 nurses, the same number as in 1959.

PROFESSIONAL NURSE TRAINEESHIPS

Congress in 1959 approved legislation extending the professional nurse traineeship program for an additional 5 years until June 30, 1964. The legislation also provided for the use of traineeship funds for short-term training courses for nurses. Both 5-year extension and short-term training were recommended in August 1958 by the national conference for evaluation of the traineeship program.

In the 4 years since it was begun, the professional nurse traineeship program has been of aid in meeting the need for nurses with leadership and teaching talents. Several thousand nurses have received advanced training in administration, supervision, and teaching; the amount awarded in the traineeships was about \$16.9 million.

The number of participating schools of nursing and schools of public health sponsoring advanced programs of study has risen to 87. In 1960 they received grant awards totaling more than \$5 million to provide traineeships to nurses.

Policies were developed to guide the award of traineeship grants for short-term training. These intensive courses give nurses the opportunity to update their skills in nursing administration, supervision, and teaching. Before the year ended, 37 grants had been awarded to sponsors of a total of 75 short-term courses; the sponsors included the Western Interstate Commission on Higher Education, universities, general hospitals, State health departments, and State professional nursing organizations.

Medical Services for Federal Agencies

The medical care programs of the Coast Guard, the Federal Bureau of Prisons, the Maritime Administration, and the Bureau of Employees' Compensation were carried on by Public Health Service officers who are assigned to these agencies on a reimbursable basis.

UNITED STATES COAST GUARD, TREASURY DEPARTMENT

Health and medical services of the U.S. Coast Guard were given by 97 Public Health Service officers, including 47 dentists, 34 physi-

cians, and 12 nurses. Medical officers served aboard vessels engaged in operations of ocean weather station VICTOR in the Pacific and stations BRAVO and COCA in the Atlantic, and with other cruise ships as needed. Doctors and dentists served aboard the vessel making the annual Bering Sea Patrol and the icebreaker used in operation DEEP FREEZE V.

PHS officers were assigned to Washington headquarters of the Coast Guard; to the Coast Guard Academy, New London, Connecticut; to various shore stations; and to the vessel COURIER stationed in the Mediterranean broadcasting Voice of America programs.

The physicians aboard the cutter on the Bering Sea Patrol, from Seattle to Point Barrow, Alaska, and return, examined and treated Alaska Native families gathered at health clinics in the schoolhouses of some 25 villages visited. The dental officer gave treatments and X-ray examinations, performed extractions, and put in fillings.

BUREAU OF PRISONS, DEPARTMENT OF JUSTICE

For the thirtieth year, the Public Health Service provided medical, psychiatric, psychological, dental, nursing, and related health services for Federal prisoners. There were 22 hospitals and 8 infirmaries to provide care for the 23,000 prisoners.

Psychiatric services were strengthened by the assignment to operating programs of three psychiatrists who were trained at the Menninger Clinic under sponsorship of the Bureau of Prisons and the National Institute of Mental Health. This helped to keep up with the increasing demands for psychiatric diagnostic and treatment services, which are required under the provisions of the Youth Corrections Act, the New Sentencing Act, and the Act providing for the care and custody of insane persons charged with or convicted of offenses against the United States.

The staff at the reformatory for youthful offenders at Lompoc, Cal., which serves as a diagnostic center for the West Coast area, completed 87 psychiatric evaluations for Federal courts. Similar requests were made of medical staffs of several other institutions.

Medical staffs made some increase in the psychiatric services given prisoners. Treatment included use of the newer psychopharmacologic agents.

The number of narcotic addict offenders committed with long sentences has substantially increased. In 1960 the medical staff at the New York City Detention Headquarters treated 326 offenders for acute symptoms of withdrawal from drugs; most of them required hospital treatment. The medical staff at the Leavenworth penitentiary in Kansas began a special study of addict offenders to obtain information needed to develop future programs for the care of this group.

New forms of group therapy were initiated because the use of group techniques enables staffs to extend their services with increased efficiency. At the National Training School for Boys, Washington, D.C., the psychologists held regular group meetings with an entire cottage of 70 to 90 boys. This proved a valuable means of relieving emotional and personality disturbances which often occur in newly committed youths. At 7 institutions, group programs were in progress to facilitate the training of personnel in the handling of emotionally disturbed offenders. The medical officer at the Federal Correctional Institution, Tallahassee, Florida, established a group program for treatment of diabetic prisoners. Group techniques are used in teaching proper diet and hygiene and in treating the psychosomatic complications of diabetes.

At five institutions, special clinics have been set up for treatment of acne. Observation of young prisoners with scarred and blemished skin has shown indications of causal relationships between the individual's inadequate personality pattern and his skin condition.

Pioneering efforts in research continued. The staff at Ashland, Ky., has undertaken a project to determine effectiveness of group counseling in a correctional institution. The psychologist at the Medical Center for Federal Prisoners in Springfield, Mo., continued work on a multiple-approach personality inventory test. The staff at Atlanta, Ga., cooperated with Emory University in studying effects of various drugs in causing mental symptoms. As an outgrowth of this project, a large sample of the Atlanta prison population is being studied to determine the incidence of symptoms of personality and character disorders.

Requests for prisoner volunteers to participate in medical research projects increased. Cooperation in significant research continued to be a major concern of the prison medical service.

Preliminary studies were made, with the assistance of the National Institute of Mental Health, looking toward the construction of a new 600-bed psychiatric facility, which is badly needed because of overcrowding at the Medical Center in Springfield. Among construction projects completed during the year was the modernization and renovation of the hospital at the Federal Reformatory in Chillicothe, Ohio. Installation of modern dental equipment was completed in all the institutions.

The prison hospitals provided a total of 407,709 hospital relief days. Medical staffs performed 843 major operations and 5,849 minor operations. Outpatient departments gave 914,700 treatments. Physicians gave 31,498 physical examinations. The two institutions for women reported 30 births. Deaths in all institutions totaled 52.

MARITIME ADMINISTRATION, DEPARTMENT OF COMMERCE

Medical and dental care for the cadet midshipmen, faculty, and staff members of the U.S. Merchant Marine Academy, Kings Point, New York, was provided by a medical officer and two dental officers of the Public Health Service assigned to the Maritime Administration. The medical officer in charge of the Public Health Service hospital on Staten Island acted in an advisory capacity to the academy in connection with the health program.

There were 485 admissions to the academy's Patten Hospital. Emergency medical care was available at the North Shore Hospital, a general community hospital in Manhasset, 12 miles away, where cooperation of the staff was excellent.

Outpatient treatments and services, including physical examinations and inoculations of cadets, totaled 10,233. Dental visits numbered 3,304.

In Washington, the Public Health Service physician serving as Chief Medical Officer for the Maritime Administration provided professional counsel to the insurance department and to the local Office of Seamen's Services in preparation of clinical abstracts.

BUREAU OF EMPLOYEES' COMPENSATION, DEPARTMENT OF LABOR

Medical officers of the Public Health Service assigned to the Bureau of Employees' Compensation, U.S. Department of Labor, administer the medical care program for the Federal Employees' Compensation Act and other compensation acts. Medical care, including treatment for injuries and physical and vocational rehabilitation services, is provided by medical officers and facilities of the Public Health Service, by other Federal medical establishments and by private physicians. Medical services are provided for traumatic injuries and for all diseases that have work-connected causes.

Increased attention was given during 1960 to the physical and vocational rehabilitation of injured Federal employees with emphasis on aiding those having a minor physical impairment and a major mental or psychoneurotic involvement. Special services for ionizing radiation injuries, hospital staphylococcus infections, and forest fire injuries were also provided.

Bureau of State Services

The major function of this Bureau is to encourage the rapid and widespread application of health knowledge. New environmental health hazards, resulting from industrial and population growth, and the chronic diseases, which are mounting as the communicable diseases

decline, have received special emphasis in Bureau programs. This emphasis has been given without diminishing efforts in the control of those communicable diseases which continue to be constant threats to the health of the American people.

The Divisions operated by the Bureau of State Services in fiscal year 1960 were: General Health Services, Special Health Services, Public Health Nursing, Dental Public Health, International Health, Communicable Disease Center, Engineering Services, Radiological Health, Health Mobilization, and Water Supply and Pollution Control.

Division of General Health Services

The programs administered by the Division of General Health Services include the Arctic Health Research Center, the National Office of Vital Statistics, program development, public health education, State grants, and professional training and traineeships. International education and exchange activities were transferred to the Division during the year (November 1, 1959).

STATE GRANTS

For fiscal year 1960, a total of \$269,475,000 was available for grants-in-aid to States and territories to conduct public health programs and to build hospitals and other health facilities. This total reflects an increase over the preceding year of \$2 million divided equally between heart disease control and mental health programs. The amounts of actual payment and the purposes for which they were made are as follows:

General health services-----	\$14, 985, 422. 00
Venereal disease special projects-----	¹ 2, 371, 491. 73
Tuberculosis control-----	3, 993, 078. 00
Mental health activities-----	4, 911, 490. 00
Cancer control-----	2, 190, 090. 00
Heart disease control-----	2, 904, 661. 00
Hospital and medical facilities construction-----	143, 432, 545. 87
Waste treatment works construction-----	40, 295, 227. 03
Water pollution control-----	² 2, 900, 827. 00

¹ Includes \$634,086.73 supplies and services furnished in lieu of cash.

² Includes \$242,255.00 paid to interstate agencies.

Other funds used to help strengthen State and local health programs were: \$1,904,224.48 for traineeships for professional public health workers; \$122,465.27 for training and demonstration projects in air pollution control; \$952,497.99 for grants to schools of public health in the provision of public health training; and \$225,239.66 for cancer demonstration projects, which includes \$13,132.66 for personal services furnished in lieu of cash.

ARCTIC HEALTH RESEARCH CENTER

The Arctic Health Research Center is the only research unit of the United States which is concerned exclusively and comprehensively with the health problems associated with life in low temperature areas. Although the installation is small and progress is hampered by the absence of basic data long available for other parts of the world, the range of research projects is extensive. The 58 papers prepared by 18 Center scientists during the year for professional groups and journals, national and international, is indicative of substantial progress.

In epidemiological studies, emphasis is placed on field and laboratory investigations of disease outbreaks and endemic diseases in Alaska. Serology as a tool of epidemiology is being used increasingly, with assistance from the Rocky Mountain (Montana) Laboratory. Serologic evidence of tularemia has been found to be widespread among Eskimo and Indian men from all over interior Alaska. Brucellosis is known to occur among caribou-eating groups.

Also in collaboration with the Rocky Mountain Laboratory, a search has been started for Arbo viruses in Alaska. Specimens of tissue and sera from various migratory birds will be obtained and examined for antibodies against equine encephalitides and psittacosis.

Further study of the adaptation of man to cold environments has been implemented through arrangements with the University of Alaska to use electronic equipment and trained assistants in assessing degree of adaptation through training and repeated exposure to moderately cold temperatures.

Recent reports from the Center have established that hereditary methemoglobinemia is an enzymatic defect. A test for the enzymatic deficiency has also been developed that is a relatively easy and practical laboratory procedure.

In connection with cystic hydatid and alveolar hydatid diseases, all suspects are now given a battery of serologic tests through cooperative arrangements with Public Health Service hospitals in Alaska. A serological test has been worked out which promises to be specific for alveolar hydatid disease.

This year marked the first successful winter-long operation of an air lock system developed to prevent freezing of water supply lines during intervals between pumping periods. Other studies in environmental sanitation involve a windmill-driven generator to provide heat for thawing, ground water reconnaissance in 15 villages, sewage stabilization lagoons, experimental recirculating waste treatment units, and inventories of food fishes and their parasites.

NATIONAL OFFICE OF VITAL STATISTICS

National vital statistics are based on reports of births, deaths, fetal deaths, marriages, divorces, and notifiable diseases that are collected

by non-Federal registration officials. They are used to plan programs in public health, medical and demographic research, education, social welfare, business, and government.

The National Office of Vital Statistics is engaged in a continuing program to increase the completeness and accuracy of vital data and to make them more comparable by coordinating the registration and statistical practices of the States and other gathering jurisdictions. As part of this effort, the eighth national biennial meeting of the Public Health Conference on Records and Statistics was held in June 1960. The Conference is an organization of study groups on problems of interest to producers and consumers of vital statistics, inside the Public Health Service and the Department, and elsewhere.

In addition to publishing basic annual data, the National Office of Vital Statistics originates and supports research designed to improve statistical methods, increase the exactitude of vital data, deepen and extend interpretive techniques, and broaden the use of statistics as a meaningful source of insight into the measurable values of society.

As an example of its support of important research in vital statistics, the National Office in January 1960 began serial publication of new fundamental studies in birth statistics developed by the Scripps Foundation for Population Research. These studies will give a more exact and detailed picture of the fertility experience of American families based on annual birth rates for mothers by their exact years of age for first, second, and succeeding birth orders. After the initial presentation has been completed, the National Office of Vital Statistics will carry on similar researches.

In addition to giving a more precise perspective on birth rates, this approach will identify any changes that may be occurring in the most fertile ages for childbearing.

PROGRAM DEVELOPMENT

Within the Program Development Branch, there is clear evidence that research in public health practice is receiving increasing attention and support among health departments, voluntary agencies, and schools of public health. Requests for information on research grants in this field, and for liaison, workshop, and consultation services have steadily mounted during the year.

The Branch also conducts intramural studies to define community health needs and resources, health attitudes, and survey techniques. Final reports on two such studies are nearly complete: one study was carried out in a Great Plains county that lacked local health services; the other explored the nature of anxieties relating to illness.

The Branch is the focal point in the Public Health Service for the development of school health and rural and migrant health programs. A major aim is to coordinate the interests and resources of agencies

and groups involved in each activity. To this end, staff members participated in many working conferences at national, State, and local levels. A national institute was held for professors of health education in schools of education, in co-sponsorship with the National Education Association. A study was initiated on the health beliefs and behavior of East Coast migrants and the intermediaries to whom they turn for health assistance. New program aids and data were prepared for field and interagency use.

PUBLIC HEALTH EDUCATION

Through consultation, research, and training activities, the Public Health Education Branch assisted States and local health departments, units of the Public Health Service, educational institutions, and other organizations in developing health education programs that will influence health habits of the general public and special groups. Full-time health education consultants are serving in 6 of the 8 Regional Offices.

The Branch concentrated on stimulating badly needed research in health education, particularly by official and voluntary health agencies. Several regional seminars were held, designed to sensitize organizations to the importance of such research as well as to develop research competence. By the end of the fiscal year, several research projects had been initiated in the field.

TRAINING

The public health traineeship program was extended by The Congress for an additional 5 years, through June 30, 1964. During 1960, traineeships were awarded to support the graduate or specialized public health training of 622 physicians, nurses, engineers, sanitarians, dentists, health educators, and other professional personnel needed in modern public health practice. The annual appropriation for grants to accredited schools of public health for the provision of comprehensive professional training was increased to \$1 million for fiscal year 1960, as against \$450,000 for 1959.

INTERNATIONAL EDUCATION AND EXCHANGE BRANCH

Programs of study and observation were arranged and supervised for 640 international health students and visitors representing 89 countries during 1960.

A total of 126 training facilities were utilized including schools of public health, medicine, and nursing; clinical institutions; and 16 Public Health Service installations.

Division of Health Mobilization

The Division of Health Mobilization has responsibility for coordinating Public Health Service activities conducted under assignment

by the Office of Civil and Defense Mobilization, to ensure health services for the civilian population in the event of disaster.

The health mobilization program encompasses the preparation of national emergency plans and the development of preparedness programs covering (1) health services; (2) development, utilization, and emergency management of health manpower; (3) availability of essential health resources through such activities as stockpiling of scarce items and materials and stimulating increased commercial inventories; (4) community water supplies; (5) a program of guidance and consultation to public and private health services regarding disaster preparedness measures; and (6) individual self-help measures.

Priority is being given to the development of an Emergency Health Service to function during a national emergency. This organization will provide for the coordination of personnel of the Public Health Service, Food and Drug Administration, Office of Vocational Rehabilitation, medical personnel from the Children's Bureau, and personnel from the Veterans Administration and other Federal agencies with health capabilities.

As part of the vital function of training, three nationwide courses were given during the year in basic concepts of health mobilization for civil defense. Approximately 300 members of medical and health-related professions attended. Several thousands more received mobilization information through special briefing sessions and various education media.

Research efforts were directed to the development of (1) a scale model Civil Defense Emergency Hospital for training purposes; (2) a self-help procedures manual; (3) standardized medical treatment procedures for use with austere resources; (4) efficient methods for the emergency management of health manpower.

Region III, DHEW, was selected as a pilot area to develop and test procedures for regional and State operations. Fifty PHS reserve officers were recruited and trained to serve in their local communities to assist in the implementation of emergency operational survival plans.

Health Mobilization Program Representatives were recruited and assigned to each PHS regional office, each OCDM regional office and to nine States.

Division of Public Health Nursing

The Division of Public Health Nursing has been active this past year in four broad areas: 1) the extension of health department services to the care of the sick at home, 2) the improvement of management practice in public health nursing, 3) new developments in public

health nursing education, and 4) research in public health nursing practice.

Consultation has been given at national, State and local levels on the first three of these subjects. Plans have been developed to examine various methods of providing comprehensive nursing services and to stimulate nursing care programs in every State.

Substantial progress has been made in the improvement of nursing administrative practices and is well demonstrated by the number of agencies instituting work measurement procedures. Since 1953 when this program was begun in one large county health department, 32 local health departments have established these procedures and are utilizing the resulting data to plan and analyze their programs.

The method of documenting changes in the health status of patients has been refined and is ready for more extensive trials. Through the use of this method in one agency it was learned that the nurses provided service for 158 public health nursing problems found among the 89 patients studied. Within three months, over 70% of these problems showed definite improvement or were entirely eliminated.

The twentieth census of nurses employed for public health work in the United States and its territories has been completed. This census showed a relatively small increase, 16 percent, since 1950 in the number of nurses employed by local official and other agencies. A sharp increase of 89 percent in the number of nurses employed by boards of education was also shown.

Division of Special Health Services

The Division of Special Health Services is responsible for the programs directed toward specific health problems or particular population groups. Emphasis is placed on such major health problems as chronic illness control and the health of the aged. Division programs are: medical aspects of air pollution, accident prevention, occupational health, cancer, and control of tuberculosis, heart disease, and other chronic diseases.

CANCER CONTROL PROGRAM

Forty-nine Community Cancer Demonstration Projects were supported from funds appropriated by Congress for the first time this fiscal year. Public health agencies and nonprofit organizations and educational institutions were recipients of about \$1,400,000 in project grants administered by the Cancer Control Program. The purpose of these grants is to aid in demonstrating ways in which confirmed techniques in cancer control can be applied widely in communities with a resultant reduction in the cancer death rate. Major emphasis was placed on projects involving cytologic examinations. The break-

through in cytology, as an aid in finding early cases of cancer, promises to reduce substantially the death rate from cervical cancer. Project grant funds supplement the \$2,250,000 which was granted to help support State health department programs.

The Program, with assistance from the National Cancer Institute, prepared a position statement on smoking and lung cancer for the Surgeon General. The article, which concluded that "the weight of evidence at present implicates smoking as the principal etiological factor in the increased incidence of lung cancer," was published in the November 28, 1959, issue of the *Journal of the American Medical Association*. Two exhibits on the subject were displayed at national and regional medical meetings.

In six regional meetings, the status of national, State, and local public health efforts in cancer control was explored, and plans were made by which technical assistance can be furthered. Two regional meetings were also held with private practitioners to discuss potentials in cancer control and their ideas for applying existing knowledge.

The Program's efforts to increase cytological examinations for cervical cancer among women who are Federal beneficiaries of public medical care resulted in the examination of more than 40,000 women in 12 different projects.

HEART DISEASE CONTROL PROGRAM

The Heart Disease Control Program supports and promotes widespread use of the products of research in cardiovascular disease. It stimulates joint activities among Federal, State, and local health agencies and the health professions to reduce heart disease occurrence, disability, and death. The work of 64 medical and other professional officers assigned to States on request covers the broad spectrum of heart disease control—clinical work, applied research, and public health activities.

On October 29, 1959, Secretary Flemming announced the validation of the fluorescent antibody technique for the rapid identification of Group A beta hemolytic streptococci in human throat smears. Since that time, the Program has sponsored training in the technique for health department laboratory technicians of 27 States and Puerto Rico and has contracted with each of the participating agencies for validating data and other information. Full participation from the States and territories is expected by January 1961, thus bringing the prevention of first attacks of rheumatic fever and glomerulonephritis a step closer to reality.

Community studies were planned which will help provide a scientific basis for deciding whether the lives of moderate hypertensives can be prolonged by early treatment. A test of a heart sounds recorder for use in finding heart abnormalities among school children was

continued in Chicago, under sponsorship of three local groups and the Public Health Service. To develop a rational basis for primary prevention of coronary heart disease, the Program supported many projects seeking to identify and measure factors associated with the disease in different population groups; diet, obesity, stress, and ethnic factors are currently being investigated by epidemiological techniques. To demonstrate ways of making the latest measures in stroke rehabilitation services available to communities, the Program participated in projects with eleven State and local health departments. In these projects, knowledge is being applied to restore stroke patients to activities of daily living.

The program worked with cooperating groups to develop and test new electrical and electronic aids for physicians in diagnosing heart disease. Means by which electronic computers and observer instruments can be related are being studied. The long-range goal is to make it possible for each physician to have, at his patient's bedside, the equivalent of diagnostic services that are now available only in large medical centers.

CHRONIC DISEASE CONTROL PROGRAM

Health departments in increasing numbers are being assisted by the Chronic Disease Program in developing effective measures for early detection and prevention of long-term disability and improvement of care for the chronically ill and the aged.

Program Services

Continuous diabetes detection programs are gaining wider acceptance by small health departments and clinics with low budgets and small volume screening goals. This is the result of practical procedures worked out and recommended by the Program in the use of inexpensive, hand-operated blood testing equipment developed a year ago.

Mobile testing equipment is being used in multiple screening programs for detecting diabetes, glaucoma, brucellosis, obesity, and heart abnormalities. These programs are bringing detection services to widely scattered rural population centers.

Strike Back at Arthritis, a booklet produced in collaboration with the Arthritis and Rheumatism Foundation, provides physicians and health agencies with a tool for preventing or minimizing the crippling effects of the disease. A similar Public Health Service booklet, produced two years ago, dealing with the crippling results of stroke is widely used by medical and ancillary professional groups in professional training and in disability control programs.

Programs to improve care given in nursing homes have been enhanced by a joint agreement with the American Red Cross and Amer-

ican Nursing Home Association to use authorized Red Cross Nurse instructors to train nursing home aides. The Red Cross has already trained 3,000 nursing home aides in 33 States and the District of Columbia in care techniques developed by the Public Health Service.

An inventory of existing home care programs in the United States, being made in conjunction with the American Medical Association, will be valuable to communities intending to or carrying out such programs.

Operational Research

Validation of diabetes detection tests continues. Screening of 22,000 expectant mothers during a six-year study of the effects of abnormal carbohydrate metabolism in pregnancy has been completed. Preliminary data indicate that pregnant women with abnormal glucose tolerance are more likely to develop diabetes, and that there is a greater than expected incidence of diabetes among their children.

Screening and diagnostic tests for glaucoma are being evaluated in collaborative studies under way at four universities. These studies, supported by 5-year grants from the Public Health Service, will help standardize early detection procedures.

TUBERCULOSIS CONTROL PROGRAM

The most significant event for the Tuberculosis Program in fiscal 1960 was the Arden House Conference on Tuberculosis, held November 29 to December 2, 1960, and co-sponsored with the National Tuberculosis Association. The Conference was called to discuss ways of putting existing control techniques to most effective use in speeding the consistent decline of tuberculosis as a major hazard to the public health. The 18 conferees, men and women of national eminence in public health and related fields, made 12 recommendations for the improvement of tuberculosis control in the United States.

The major recommendation was for the widespread application of chemotherapy as a public health measure. This means aggressive effort to treat—with proper combinations of drugs over a sufficient period of time—all persons with tuberculosis who are sources of infection in the community. In many communities, treatment of tuberculosis patients is obstructed by insufficient or poorly utilized resources. Although there may be enough hospital beds, outpatient facilities as well as coordinated hospital and outpatient care are often inadequate. There is a shortage of physicians trained in treating tuberculosis, and frequently the services of those available are not advantageously utilized. Laboratory and X-ray services in many areas need to be expanded. In some areas, many clinic patients must

pay for drugs—a requirement that too often either inhibits their seeking care or interrupts its course, to the patient's damage.

The major recommendation, which indicates community action against these problems, together with the other 11 recommendations are now guides for the Tuberculosis Program's continuing technical assistance to the States, and have been the subject of State and Regional conferences.

In research, the Program has reported on findings in the fields of atypical mycobacterial infections, tuberculin sensitivity, and chemotherapy evaluation. A concentrated effort was made to call to the attention of the medical profession the results of a Program study which demonstrated that the drug, isoniazid, will prevent practically all the serious extrapulmonary complications of primary tuberculosis in infants and young children. Research is also continuing on other prophylactic applications of this drug.

OCCUPATIONAL HEALTH PROGRAM

In protecting the health of American workers, Occupational Health Program personnel studied numerous operations, ranging from celery growing to uranium mining. Through combined on-the-site studies and laboratory research, Program dermatologists pinpointed the cause of a troublesome skin disease among celery workers. The uranium mining study, now in its 11th year, involves health hazards with a long latent period. Although lung cancer findings are not yet conclusive, a vigorous educational program is underway which may ultimately result in the adoption of recommended measures to control exposures to radiation in the mines. Other continuing major studies included the effects of industrial noise on hearing loss and silicosis among metal miners.

In addition, extensive laboratory research probed into how ever-multiplying toxic agents and conditions affect the worker's health, how their effects may be detected early before irreversible damage occurs, and how they may be effectively controlled.

It has been shown that the tolerance developed by the lung tissue of animals repeatedly exposed to ozone is increased by prior exposure to lower doses of certain other irritating substances such as nitrogen peroxide, thiols, and oil mists.

Also of significance are animal studies which indicate that a high-salt diet may reduce nervous system injury from carbon disulfide, a chemical used largely in the manufacture of viscose rayon and cellophane.

Developments in environmental evaluation techniques include comprehensive experimentation with an electronic dust counter, direct reading devices for toxic gases, and ion exchange separation proce-

dures. These devices are being utilized in habitability studies aboard nuclear submarines and in industrial hygiene investigations.

Consultation was provided to official agencies, industry, and labor in solving baffling cases of worker illness and in developing and strengthening occupational health programs. Training activities to increase technical competence in official agencies were intensified. In addition, a prototype training course in occupational health for local health officers was presented to indicate how health department staffs can contribute to this field of health.

The Occupational Health Program was designated the national center responsible for obtaining abstracts of United States literature in the occupational health field as part of a new world-wide abstracting service established by the International Labor Organization.

AIR POLLUTION MEDICAL PROGRAM

In furtherance of its three-fold objective—to determine the adverse effects of air pollution on human health, to develop methods of minimizing such effects, and to help health authorities in applying these findings—the Program benefited during FY-1960 by its 1959 reorganization. Two new sections, Laboratory Investigations and Community Investigations, and several specialized research units concerned with auto exhaust, eye irritation, and pulmonary function were engaged in the conduct or direction of research activities, which now utilize about 95 percent of the Program's resources and staff.

The number of research projects under way has risen from 7 in 1956 to 44, as of July 1, 1960, and the projects completed from zero to 13. In addition the Program maintains technical cognizance over an additional 30 research grant projects.

Highlights of the Year's Progress

FY-1960 marked the first published results of long-term studies which combined air measurements and other engineering techniques with statistical, epidemiological, and animal laboratory studies . . . also the first published results of studies of the relationship of specific air pollutants to a specific disease.

The Program rendered assistance to the State of California in setting up the first legal standards for motor vehicle exhaust fumes and for air pollutants in general. It also intensified sharply its research on the chronic biologic effects of long-term exposures of plants, animals, and human beings to air pollution containing irradiated auto exhaust components.

The Program's progress was accomplished in close collaboration with the Air Pollution Engineering Program. By year's end, plans were well advanced for the integration of these two Programs into a New Air Pollution Division.

ACCIDENT PREVENTION PROGRAM

The Accident Prevention Program continued to identify major problem areas through research and to develop programs of prevention.

Program Activities

A research project to determine the relationship of health and physical status of drivers to motor vehicle accident experience was inaugurated in cooperation with the State of Connecticut. During the next year approximately 10,000 drivers in this State will receive multiple screening examinations in a mobile unit. The screening results and diagnosis of each driver will be related to his automobile accident experience since 1952 and his traffic violation experience since 1959.

An intensive nationwide effort was undertaken to trace and locate 2,000 small house trailers equipped with a gas heater produced by one manufacturer which was found to be defective. Every means of mass communication was used to warn trailer owners about the heater and through the combined efforts of State and local public health departments and the manufacturer most of the trailers and heaters were located and the owners warned of the hazard. A total of sixteen deaths from carbon monoxide poisoning occurred as a result of the use of this heater.

Utilizing the information obtained from the epidemiologic study of fires and explosions in Mississippi County, Arkansas, a prevention program was developed. The most frequent causes of fires were found to be defective electrical equipment or wiring and defective petroleum heating or cooking stoves.

Preliminary tabulations indicate that accident injury cases treated in physicians' offices and hospitals in the five-county area surrounding Harrisonburg, Virginia, have decreased significantly since the demonstration project began in 1958. This project was developed to demonstrate the effect of a broad, intensive educational program upon the incidence of accidental injuries in a community.

In cooperation with the American Medical Association and the National Safety Council a nationwide campaign to encourage the installation and use of automobile seat belts is being conducted. Seat belt manufacturers report a 300-percent increase in sales over last year.

State and Local Developments

An increasing public health interest in accident prevention throughout the country is apparent. There are now 365 local poison control centers in 52 of the States and territories. Twenty-eight individuals are now working full time on various accident prevention activities in State or local public health agencies in 17 different States.

Division of Radiological Health

In its second year, the Division of Radiological Health made good progress in all phases of its primary mission, which is to help develop a nationwide Federal-State structure of radiological health programs and facilities commensurate with the needs of the general population. Underlying that mission is the rapid and continuing expansion in usage of various forms of ionizing radiation sources in the healing arts, in vitally important research, in industry, agriculture and transportation, and in national defense.

Broad public and official support of the Division's mission and program was evidenced by the increased funds authorized by the Congress—\$622,688 in fiscal year 1959; \$2,844,900 in fiscal year 1960—and by the cooperation received from other Federal agencies, State governments, educational, research and professional organizations, and the public press.

Of particular significance were these closely related developments: creation of the Federal Radiation Council by Presidential Executive Order with a mandate to advise the President and provide guidance to Federal agencies; a presidential order that the Department of Health, Education, and Welfare intensify its radiological health efforts and assume primary responsibility within the Executive Department for collation, analysis, and interpretation of environmental radiation levels; the naming of the Secretary of the Department as the first Chairman of the Federal Radiation Council; and the delegation by the Secretary to the Public Health Service of the principal elements of these efforts and responsibilities.

Attainment of a coordinated nationwide environmental radiation surveillance network neared reality in fiscal year 1960, aided by the opening of two new regional laboratories at Montgomery, Alabama, and Las Vegas, Nevada, and the expansion of the milk sampling network from 12 to 59 stations. Construction was begun on a third laboratory, at Rockville, Maryland, to specialize in X-ray protection studies and training. When fully operational, these new facilities will greatly enhance research and training activities as well as surveillance. The Service's Sanitary Engineering Center at Cincinnati continued as the principal resource for research in methodology for the radiochemical analysis of air, water, milk and food samples, and for short-term technical training.

The ability of the Division to render technical assistance to State health agencies is steadily increasing. During the year, full-time radiological health specialists were on assignment to 4 regional offices and 13 States; inventories of 40 State programs were completed; and numerous medical or dental X-ray surveys initiated—all these activi-

ties being pointed toward development of State capabilities in radiological health.

Significant progress was made toward closing the gap in our knowledge of the effects on specific population groups of chronic, low-level radiation exposure from various sources and in various localities. The bulk of the Division's rapidly expanding research program—both direct and supported—is designed for this purpose, 17 additional studies having been initiated during the year.

Implementing the presidential directive, a comprehensive data collation, analysis, and publication program was begun, and numerous other activities either initiated or expanded. These include: a program of public education and information; training in radiological health techniques of 961 personnel from public health and allied professions; and designation of 49 PHS personnel to receive specialized university instruction. Technical advice and liaison was provided to Federal agencies, universities, and professional and industrial groups with an interest in radiological health.

Division of Engineering Services

The Division of Sanitary Engineering Services provides training, technical assistance and consultation to State and local health departments, industry and other groups on the engineering aspects of environmental health problems. Division programs are: air pollution engineering, milk and food sanitation, general engineering, and engineering resources and training. The research center for these programs is the Robert A. Taft Sanitary Engineering Center in Cincinnati. This Center also carries out research for the Divisions of Radiological Health and Water Supply and Pollution Control.

ROBERT A. TAFT SANITARY ENGINEERING CENTER

The Robert A. Taft Sanitary Engineering Center combines in a single installation research, training, and technical assistance on engineering aspects of environmental public health problems. The Center serves the environmental health divisions of the Public Health Service through its facilities for research in air pollution, milk and food sanitation, radiological health, and water supply and pollution control. Its research staffs also provide technical consultation and assistance to other Federal and State governmental units and industrial groups. A special training program conducts professional level intensive short-term courses for scientists, engineers, and public health workers from State agencies, industry, universities, and other Federal agencies.

ENGINEERING RESOURCES AND TRAINING

The development, training, and improved professional status of sanitary engineers both in and out of the Public Health Service

was fostered during the year through the medium of traineeships, in-service training, research grants and fellowships, research training grants, and cooperation with universities, professional, and technical organizations.

The 1960 roster of sanitary engineers was begun in cooperation with the National Science Foundation. Arrangements for a survey of future manpower needs in sanitary engineering are underway.

GENERAL ENGINEERING PROGRAM

Special Citations and Letters of Commendation for excellence in sanitation were awarded to 9 railroads and 24 vessel companies. Two of the vessel companies won Special Citations for the fifth consecutive year. A higher level of surveillance was reflected by a 10-percent increase in operational inspections on railroads and a 15-percent increase on vessels engaged in interstate travel. The program was expanded to handle sanitation problems related to food service and to servicing areas for jet aircraft on commercial airlines. More than 200 new aircraft and vessels were issued Certificates of Sanitary Construction. An interdepartmental Committee on Sewage and Waste Disposal from Vessels was formed to investigate and recommend treatment and disposal methods. Initial steps were taken to formulate standards on vessel sanitation for the World Health Organization similar to those now in use on airport sanitation.

Final revisions to technical manuals dealing with sewage disposal, school sanitation, and mobile home parks were prepared for publication. In cooperation with the American Public Works Association, work began on a new supplement to the refuse disposal practices manual. Joint activities with industry and other agencies led to the preparation of a supplement to the "Handbook on Sanitation of Airlines." Final drafts of the revised National Plumbing Code were submitted for committee review. Field testing of a new guide for evaluation of community environmental health facilities and services was conducted in six metropolitan areas.

Three research projects in water supply were begun including one to investigate the relationships of turbidity to incidence of infectious hepatitis. A comprehensive nation-wide inventory of interstate carrier water supplies was completed. A program for surveying approximately one-third of these supplies annually was established. The "List of Accepted Equipment" was increased by 1,373 new items, some 324 of which required modification prior to acceptance.

MILK AND FOOD SANITATION PROGRAM

Continued growth, through increasing State and local participation in the State-Public Health Service voluntary program for the certification of interstate milk shippers, was shown during the year by

the certification of 80 additional shippers, making a total of 700 in 36 States, receiving milk supplies from more than 100,000 dairy farms. In shellfish control, approximately 1,400 shippers were certified. Improvements in the certification program were effected through meetings and seminars held in shellfish producing areas. All of the coastal States, except Alaska, have currently endorsed State-Public Health Service shellfish programs. Close operating contacts are being maintained with Canadian authorities under the terms of a bilateral agreement.

Research at the Sanitary Engineering Center shows that the strontium-90 and cesium-137 levels in milk decreased substantially since the cessation of nuclear weapons testing late in 1958. Short half-lived fallout is no longer detectable in milk. More than 50 State agencies are cooperating in a national program for standardization of milk laboratory procedures. Recently developed assay procedures for shellfish poisons have been evaluated, standardized, and applied to the public health control of shellfish growing areas. Improved methods for the bacteriological examination of shellfish have been developed.

The ordinance and code part of a proposed new Food Service Manual to replace the 1943 Ordinance and Code Regulating Eating and Drinking Establishments is expected to be published by July 1961. Participation with national public health and sanitation organizations and industry in the development of sanitary standards for milk and food equipment resulted in the completion of 12 such standards. More than 130 seminars and training courses attended by over 6,000 individuals were sponsored or participated in by the Program.

AIR POLLUTION ENGINEERING PROGRAM

During fiscal year 1960, the Ad Hoc Committee on National Goals in Air Pollution Research—established by the Program at Secretary Flemming's request after the National Conference on Air Pollution in late 1958—completed its intensive study in preparation for a final report. This report recommends desirable national levels of support during the next 10 years for air pollution research and delineates the proper research responsibilities, and suggested expenditures, of the Federal Government, States, communities, and industry.

Research continued to dominate Program activities, with major emphasis on the auto exhaust problem; the research facility at the Sanitary Engineering Center—one of the most comprehensive of its kind in the country—has begun to produce findings of real significance: on the relationships among fuel composition, engine operating cycles, and exhaust gas composition; and on biological effects (in cooperation with the Air Pollution Medical Program).

Other Highlights of the Year's Progress

In collaboration with the Weather Bureau, the Program worked out an experimental plan for forecasting air pollution potential in the eastern half of the United States. Extensive studies were initiated on the possible hazard to public health from air pollution as a result of increasing the content of tetraethyl and tetramethyl lead in motor fuel. The National Air Sampling Network was further expanded and a good start made, with improved instruments, on sampling of gaseous air pollutants.

Late in fiscal year 1960, P.L. 86-493 was passed. It provides for intensive PHS study (and report to Congress) on motor vehicle exhausts. This will enlarge the scope of the Program's work.

Division of Water Supply and Pollution Control

The increasing importance of water to an expanding population and industry focused national attention on water quality management. The growing stature of the Federal water pollution program, raised in 1959 to Divisional status, is reflected in expanding activities and increased services to the States.

To determine reliable pollution trends, the National Water Quality Network of stream sampling stations was enlarged to 75. Continuing data have been collected, analyzed and published on water and waste treatment facilities and needs. Economic evaluations of water pollution continue.

Public Health Service research at the Sanitary Engineering Center and through grants to universities has been intensified, especially in water and waste treatment and water quality effects of pesticides, radioactive and petro-chemical wastes.

An intensive study in the Arkansas-Red River Basin to develop plans to control brine pollution is now in its fourth year and is reaching usable conclusions. Groundwork has been laid for an inventory of Federal establishments to determine the extent of and remedial measures for pollution coming from these installations.

Incentive grants under P.L. 660 for municipal sewage treatment plant construction reached \$180 million at the end of fiscal year 1960. Of 2,156 projects approved under the grant authority, 1,031 were completed and 682 under construction. Over 90 percent of the grant funds has gone to communities of under 100,000 population.

Continued assistance to States through the enforcement provision of P.L. 660 is resulting in measurable benefits. Thirteen actions, affecting some 4,000 miles of interstate streams, have been taken. Continuing files are maintained on 2,000 problem areas. Involved in fis-

cal year 1960 actions were: the Missouri River, St. Joseph and Kansas City municipal areas involving the States of Kansas and Missouri; the Animas River, Colorado-New Mexico; the Columbia, Washington-Oregon; Bear River, Idaho-Wyoming-Utah; North Fork of the Holston River, Tennessee-Virginia. Also the largest comprehensive water pollution cleanup yet undertaken was launched in the Colorado River Basin, involving seven States.

Determination of water supply requirements in conjunction with U.S. Army Corps of Engineer impoundments continued. A water use survey of the Delaware River Basin was concluded. Special reports were compiled for the Senate Select Committee on National Water Resources.

Communicable Disease Center

The Communicable Disease Center, Atlanta, Ga., is the national resource for the prevention and control of infectious diseases. It conducts epidemiological, field, and laboratory studies and provides various types of technical assistance to the States. Because infectious diseases are a universal problem, many are the target of international health efforts. CDC cooperates with the World Health Organization through representation on expert advisory panels and committees and as a laboratory diagnostic and study center. It also provides technical support and personnel as needed for the health programs of our own country's International Cooperation Administration.

At year's end, CDC took possession of its new headquarters facilities adjacent to the Emory University campus in suburban Atlanta. The Center will continue to study certain diseases at strategically placed field stations throughout the country.

EPIDEMIC AND DISASTER AID

CDC gave epidemic aid in 41 instances, most commonly in connection with outbreaks of infectious hepatitis, poliomyelitis, staphylococcal infections, aseptic meningitis, encephalitis, and acute gastroenteritis. It also conducted several hundred field investigations of epidemic outbreaks and individual case problems involving a wide variety of diseases. Disaster aid was furnished to 5 States.

REPRESENTATIVE FIELD AND LABORATORY STUDIES

Venereal diseases.—The incidence of venereal diseases continued to mount throughout the country during the year, with infectious syphilis and gonorrhea up 52.7 percent and 4 percent respectively over the 1959 figures. Eleven States and the District of Columbia recorded increases ranging from 60 percent to 325 percent for infectious syphilis.

Slightly more than one-half of the reported 369,554 cases of venereal disease were found in 51 of the largest cities.

A Public Advisory Committee on Venereal Disease Control was established to study the current situation and suggest ways of improving the technology and administrative pattern of VD control.

CDC supported epidemiologic and casefinding services in 43 States and Territories through 85 project grants totalling \$2,619,309 of Federal funds and the assignment of 226 medical and paramedical personnel to health departments. Laboratory personnel visited 19 State, 3 PHS, and 5 Latin American laboratories and held syphilis serology workshops in 13 States for 489 participants from 261 laboratories. All States and Territories and 5 foreign countries participated in the serologic evaluation study.

Excellent agreement of results was obtained in a large-scale comparison of the Rapid Reagin diagnostic test with unheated serum and the VDRL slide test. The Rapid Reagin test is more economical of time, space, and personnel, and the New York City laboratory plans to use it in screening tests, following reactives with confirmatory tests.

For the first time, a rapid, cheap, effective method is within reach for detecting gonorrhea in the female. The delayed fluorescent antibody method gives results equal to those of the best culture methods, both in the infected and carrier states.

There is no evidence of increased sensitization of syphilitic patients to penicillin administered in conventional dosages. This drug appears to be less bactericidal to gonococci than formerly thought, and other antibiotics are being tried *in vitro*.

Polio myelitis and aseptic meningitis.—Polio epidemics occurred characteristically in urban slum areas among unvaccinated preschool children, although one, in Seattle, Wash., affected unvaccinated adult males also. The national total of 5,200 cases of polio with 60-day residual paralysis was 50 percent above 1958 and double the 1957 figures. In Massachusetts and several other areas, Type III outbreaks were disturbing, but the most severe epidemic, in Des Moines, Iowa, was caused by Type I poliovirus.

A study was started on the susceptibility of newborn infants to living, attenuated poliovirus strains which might confer immunity to the natural, virulent strains. Clear differentiation of polio and aseptic meningitis caused by ECHO and Coxsackie viruses is essential to measuring the effectiveness of polio control programs. A surveillance program was undertaken in several large cities to record variations in incidence of the polio and other enteroviruses and to evaluate the long-range effect of living poliovirus vaccines.

Infectious hepatitis.—Infectious hepatitis, a disease that recurs in long-term cycles, increased sharply, with epidemics reported and studied in all parts of the country. Even higher incidence is anticipated for the coming year.

Respiratory infections.—Asian influenza epidemics reappeared with sharp increases in influenza-pneumonia mortality and total mortality particularly among older age groups in all geographic areas. A national influenza program is being developed to encourage annual influenza immunization of older persons and those with chronic illness.

In the second year of study of respiratory illnesses among CDC laboratory personnel and their dependents, the *Myxovirus parainfluenza* viruses were the most important cause of illness both in adults and children. Previously these agents have been associated primarily with respiratory diseases in children. Their contribution to disease in the population at large is still uncertain.

Hospital-acquired infections.—Requests from States for epidemic aid, consultation, phage typing, and diagnostic reagents, together with observations made during research studies in hospitals, testify to the continued importance of the problem of staphylococcal and other hospital-acquired infections.

CDC is investigating the role of environmental factors in the spread of these infections and the efficacy of germicides. A comprehensive monograph on microbiological air sampling was published, covering a decade's work by both the Communicable Disease Center and the Army Chemical Corps.

Laboratory studies have shown that *in vitro* conversion of phage types occurs among certain epidemic strains of staphylococci. Long-term epidemiologic evidence seems to support the hypothesis that these changes also occur in nature as a result of action of phages within the strains themselves.

Encephalitis (arthropod-borne).—In an outbreak of eastern encephalitis in southeastern New Jersey, 21 of 33 human cases died. The causative virus was isolated from birds, horses, human cases, and, for the first time, from the mosquito, *Culex restuans*. CDC continued its studies on the ecology of arthropod-borne viruses throughout the country.

Brucellosis.—An outbreak of 117 cases of brucellosis among employees of a swine slaughtering plant in Iowa was the largest epidemic of this disease recognized and investigated in a packing plant in this country. For the first time, *Brucella* organisms were isolated from the air; contact is generally considered to be the mode of transmission. Recent trends indicate that brucellosis is becoming a problem mainly among swine packing-plant workers.

Leptospirosis.—The largest outbreak of leptospirosis recognized so far involved more than 80 cases in Iowa. Exposure apparently occurred in swimming holes near a river. The causative organism isolated from human cases was also found to be prevalent in cattle that had access to these streams.

VECTOR CONTROL

Thirty-four community vector control programs in Oklahoma and 17 in adjoining States have developed as satellites to the original demonstration project begun by CDC in Oklahoma. A similar intra-state expansion is occurring around a demonstration in Pennsylvania.

The discovery last year that vapors from closed bags of DDVP could kill malaria mosquitoes in ventilated huts stimulated studies on the residual fumigation technique. A formulation of DDVP in an inert carrier has been developed which will release insect-killing vapors from a small cartridge for a period up to three months.

A relatively low-cost rubber orifice disk has been developed which reduces both the amount of insecticides needed and the exposure of spraymen to compounds used in the control of disease-carrying insects.

Two critically ill patients with parathion poisoning recovered within 30 minutes after a new experimental chemical, 2-PAM, was administered.

LABORATORY SERVICES AND NEW TECHNIQUES

More than 64,000 specimens were referred to the CDC laboratories by State and local health departments, Federal agencies, research groups, and foreign countries.

The Center produced and distributed, in addition to the amounts required in its own programs, some 50,000 ml. of diagnostic reagents, 905 shipment-lots of tissue culture media, 4 mammalian cell-line seed cultures, and other diagnostic materials.

The fluorescent antibody (FA) technique, which reduces the time and effort required for specific identification of disease organisms, successfully passed field tests for gonorrhea, streptococcal disease, and rabies. It is now ready for practical application on the *Brucella* organisms and work is proceeding on other potential BW agents. It appears to be as sensitive as conventional methods for the detection of enteropathogenic coli. Cells of the fungus, *Histoplasma capsulatum*, have been detected in tissue smears of experimentally infected animals and in soil samples from this country, Tanganyika, and Venezuela. The soil tests were accomplished in a few hours and the results were confirmed by mouse technique—a method requiring 3 months. Studies are underway to determine the permissible ranges of variation in technical application of the FA techniques and to discover and define optimal conditions for carrying out each important

step, so that the method can be readied for routine application to problems in public health laboratories generally. Development of a chromatographic adsorption technique for the purification of fluorescein-labeled globulin permits staining of the plague organism in impression smears of body fluids and tissues of infected laboratory and wild rodents, without nonspecific staining.

INTERNATIONAL COOPERATION

Studies have been undertaken in collaboration with the World Health Organization on the standardization and evaluation of serologic and immunologic methods for the diagnosis of schistosomiasis. In Puerto Rico, results obtained with the skin test were comparable to those obtained by stool examination.

CDC continued to operate as the International Influenza Center for the Americas. During the year, 86 influenza virus strains were submitted to the Center for antigenic analysis.

At the request of the Pan American Sanitary Bureau, a team from CDC studied the epidemiologic, entomologic, and operational data on malaria in El Salvador, Nicaragua, and Costa Rica.

TRAINING

More than 3,700 persons from State and local health departments, Federal agencies, academic institutions, industry, and numerous organizations received organized training from CDC in various aspects of communicable disease control. An additional 229 persons from other countries also received training.

Division of Dental Public Health

The Nation's dental health problem was attacked along a broad front through studies of fluoridation, dental care for the chronically ill and aged, utilization of dental assistants, defluoridation of water to prevent fluorosis, intraoral cytological testing for the early detection of oral cancer, and the nature and cause of periodontal disease.

The Division assisted health departments in promoting fluoridation, administering dental health programs, planning and conducting field studies, and recruiting personnel.

FLUORIDATION

About one out of every three persons using central water supplies, or 37.1 million in 1,922 communities, was drinking water containing fluoride added through controlled fluoridation. In fiscal year 1959, 35.6 million persons in 1,814 places drank fluoridated water. In addition, about 7 million persons in 1,903 communities used water containing enough fluoride naturally to reduce tooth decay.

STUDIES

Dental examinations at Bartlett, Texas, and Britton, South Dakota, where the water has been defluoridated for about 8 years, showed defluoridation was effective in preventing fluorosis.

A contract was negotiated for designing and testing radically new defluoridation equipment which is expected to reduce costs and prevent cyclic fluctuation of fluoride levels.

A study was begun to determine some of the factors influencing community acceptance or rejection of water fluoridation.

Another study was begun in Minnesota to determine the value of intraoral cytological testing for the early detection of oral cancer. Of major interest are the usefulness of the intraoral smear as an earlier indication of cases for biopsy, correlation of biopsy and smear findings, and the acceptance and use of this technique by the dental and medical professions.

As a part of the Kansas City study of dental care for institutionalized homebound chronically ill patients, begun last year, a program was instituted for training senior dental and dental hygiene students in caring for the chronically ill.

Another study was begun on the nature and cause of periodontal disease.

DEMONSTRATIONS

A pilot demonstration of the utilization of trained chairside dental assistants was begun in Knoxville, Tennessee.

Two fluoridation demonstrations were initiated, one in Will County, Illinois, the other in Allegheny County, Pennsylvania. These projects will demonstrate the operation and servicing of fluoride feeders designed for individual homes. Half will be in rural homes and half in Suburban areas.

Division of International Health

The Public Health Service, through the Division of International Health, represents the United States in international health organizations; provides program and policy guidance to the Department of State on international health matters; and provides technical aid to the International Cooperation Administration and its overseas missions.

Until November 1, 1959, when the Division was transferred from the Bureau of State Services to the Office of the Surgeon General, it was responsible for planning and supervising training programs in the U.S. for foreign health and medical personnel. With the reorganization, the training function was transferred to the Division of General Health Services in the Bureau of State Services.

During the year, Service personnel served on official U.S. delegations to major international meetings, including conferences of the World Health Organization, the Pan American Health Organization, and the South Pacific Commission. The Surgeon General was Chairman of the U.S. Delegation to the 13th World Health Assembly in Geneva in May. The Division assisted the State Department in developing official U.S. policy on questions which came before these and other international organizations with health-related programs, including United Nations Children's Fund, Food and Agriculture Organization, and International Labor Organization.

Public Health Service personnel served international organizations in their personal technical capacities during the year, either as members of WHO expert panels or as short-term consultants to WHO and PAHO. Service officers also participated in international non-governmental meetings in their fields of specialty. About 130 Service officers were assigned to International Cooperation Administration overseas missions during the year.

The Division played an increasingly active role in the U.S.-U.S.S.R. medical exchange program, arranging for U.S. missions in pathology and radiobiology to go to the Soviet Union and for Soviet missions in microbiology, radiobiology, and metabolic diseases to visit the U.S. In November a new exchange agreement was signed, providing for direct negotiation between the Public Health Service and the Soviet Ministry of Health for future exchanges. (Medical exchanges under a previous agreement were negotiated by the Department of State with the assistance of the Public Health Service.) The new 2-year agreement provides for exchange of 5 technical missions, exchange of 20 individual scientists for periods of from 3 months to a year and joint sponsorship of 3 scientific conferences: in poliomyelitis, heart diseases, and cancer. Two of these conferences were held during the year under review: A conference on polio was held in Moscow, May 12-16, with 13 U.S. and 15 Soviet scientists participating, and a conference on heart diseases was held in Washington, D.C., May 9-18, with 4 Russian and 9 U.S. scientists participating.

The Division completed studies of health conditions and resources in Mexico, Nigeria, Republic of the Congo (formerly Belgian Congo), Morocco, and Colombia, bringing to 21 the number of studies completed in the International Epidemiological Series.

Table 1.—Statement of appropriations, authorizations, and obligations, fiscal year 1960

[In thousands]

Appropriations	Funds available for obligation				Total funds available	Amounts obligated
	Appropriations and authorizations	Net transfers between appropriations	Repayments for services	Prior year unobligated balances		
Total.....	\$840, 853		\$34, 349	\$129, 496	\$1, 013, 640	\$857, 256
Appropriations, PHS.....	840, 734		34, 349	129, 322	1, 004, 405	848, 993
Control of tuberculosis.....	6, 452		20		6, 472	6, 444
Control of venereal diseases.....	5, 400				5, 400	5, 337
Assistance to states, general.....	24, 497		405		24, 902	24, 728
Communicable disease activities.....	8, 158		548		8, 706	8, 683
Sanitary engineering activities.....	15, 720		1, 192		16, 912	16, 746
Foreign quarantine activities.....	4, 686		306		4, 992	4, 963
Construction, mental health facilities, Territory of Alaska.....				6, 500	6, 500	6, 500
Equipment, communicable disease center.....				792	792	792
Hospitals and medical care.....	51, 600		5, 750		57, 350	57, 156
Salaries and expenses, hospital construction services.....	1, 650				1, 650	1, 612
Indian health activities.....	45, 245		739	¹ 455	46, 439	45, 686
Construction of Indian health facilities.....	4, 946			² 3, 207	8, 153	4, 364
Grants for hospital construction (1960-61).....	186, 200				186, 200	59, 140
Grants for hospital construction (1959-60).....				95, 726	95, 726	95, 313
General research and services, National Institutes of Health.....	45, 994				45, 994	45, 789
National Cancer Institute.....	91, 257		1		91, 258	85, 031
Mental health activities.....	68, 090		40		68, 130	67, 583
National Heart Institute.....	62, 237		7		62, 244	61, 572
Dental health activities.....	10, 019		3		10, 022	9, 971
Arthritis and metabolic disease activities.....	46, 862		438		47, 300	46, 620
Allergy and infectious disease activities.....	34, 054		8		34, 062	34, 034
Neurology and blindness activities.....	41, 487		1		41, 488	40, 249
Operations, National Library of Medicine.....	1, 566		12		1, 578	1, 549
Research facilities construction and site acquisition.....	150				150	147
Construction of library facilities.....				2, 241	2, 241	314
Grants for waste treatment works construction (1960-61).....	45, 000				45, 000	39, 723
Grants for waste treatment works construction (1959-60).....	1, 816			8, 442	10, 258	8, 442
Grants for waste treatment works construction (1957-60).....				657	657	657
Construction of animal quarters, Hamilton, Montana.....	150				150	150
Construction of Biologics Standards Laboratory Building.....			74	54	128	92
Construction of surgical facilities.....				308	308	100
Construction of Dental Research Building.....				1, 193	1, 193	887
Grants for construction of health research facilities.....	30, 000			40	30, 040	30, 039
Construction of animal quarters.....				154	154	
General office building.....				9, 553	9, 553	7, 332
Retired pay of commissioned officers.....	³ 1, 682				1, 682	1, 682
Salaries and expenses.....	5, 816		55		5, 871	5, 736
National Institutes of Health Management Fund.....			24, 679		24, 679	24, 476
Consolidated Working Fund, HEW, Grants for Research.....			71		71	6
Appropriations, special project funds made available by other agencies.....					8, 942	8, 055
Salaries and expenses, Bureau of Prisons, (transfer to HEW, PHS).....					2, 071	2, 070
American Sections, International Commissions, State, (transfer to HEW, PHS).....					74	73

¹ Liquidation of contract authorization obligated in fiscal year 1959.² Does not include amount of \$159,412.60 which was reappropriated.³ Does not include \$43,147.75 to be deappropriated.

Table 1.—Statement of appropriations, authorizations, and obligations, fiscal year 1960—Continued

[In thousands]

Appropriations	Funds available for obligation				Total funds available	Amounts obligated
	Appropriations and authorizations	Net transfers between appropriations	Repayments for services	Prior year unobligated balances		
Salaries and expenses, Office of Civil and Defense Mobilization (transfer to HEW, PHS).....					\$179	\$179
Research and development, Office of Civil and Defense Mobilization (transfer to HEW, PHS).....					236	147
Farm labor supply revolving fund, Bureau of Employment Security, (transfer to HEW, PHS).....					585	549
General Administrative expenses, Section 411, Mutual Security Act, executive, (transfer to HEW).....					35	33
Technical cooperation, general executive, (transfer to HEW) (annual).....					1,964	1,951
Technical cooperation, general executive, (transfer to HEW) (no year).....					2,296	1,586
Defense support, general executive, (transfer to HEW).....					206	184
Special assistance, general, executive, (transfer to HEW).....					246	233
President's Contingency Fund, executive, (transfer to HEW).....					27	27
Salaries and expenses, Office of Civil and Defense Mobilization, (transfer to HEW, Office of Secretary).....					1,023	1,023
Gift funds donated for general and specific purposes.....	\$118.7			\$174.0	292.7	208.3
Patients' benefit fund, Public Health Service hospitals.....	39.0			20.5	59.5	35.3
Public Health Service unconditional gift fund.....	28.7			57.8	86.5	74.6
Special Statistical Work, Vital Statistics.....	10.0				10.0	0.5
Public Health Service conditional gift fund.....	41.0			95.7	136.7	97.9

Table 2.—Commissioned officers and civil service personnel as of June 30, 1960

	Full-time				Part-time				
	Grand total full time	Commis- sioned officers	Civil Service			Total part-time	When actually employed 1	Without compen- sation	Other
			Total	Washing- ton metro- politan area	States					Outside United States
Public Health Service	26,430	2 3,816	22,614	9,757	12,707	1,337	607	217	513
Office of the Surgeon General	801	182	619	579	40	19	6	10	3
Immediate Office of the Surgeon General	31	8	23	23					
Division of Finance	141		139	2					
Division of Administrative Services	131	6	125	90	35	1	1		
Division of Personnel	136	17	139	139		3			3
Division of Public Health Methods	122	5	117	114	3	13	5	8	
Division of International Health	37	8	29	29		1		1	
Offices Other Than Immediate Office of the Surgeon General (Information, Executive, Details to Other Agencies	45		45	45		1		1	
	138	138							
Bureau of Medical Services	13,056	1,730	11,326	1,366	9,881	716	343	57	316
Office of the Chief	29	4	25	25					
Division of Dental Resources	41	11	30	30		111			111
Division of Foreign Quarantine	613	45	568	33	468	67	40	15	19
Division of Hospital and Medical Facilities	109	7	102	101	1	9			
Division of Hospitals	6,263	1,047	5,216	214	4,990	359	235	21	103
Freedmen's Hospital	803		803	803		42		17	205
Division of Indian Health	4,792	407	4,385	112	4,273	151	83	13	55
Division of Nursing Resources	48	13	35	35					
Details to Other Agencies	356	196	160	11	149	4	1		3
Bureau of State Services	4,451	1,005	3,446	1,099	2,335	254	96	125	33
Office of the Chief	124	7	117	117		10		10	
Division of Dental Public Health	55	17	38	38			2	5	2
Division of General Health Service	418	39	379	321	58	75	21	53	1
Division of Public Health Nursing	13	6	7	7					
Division of Radiological Health	266	120	146	70	76	4	1		3
Division of Health Mobilization	62	17	45	44	1				
Division of Engineering Services	417	73	344	61	283		15	4	8
Division of Special Health Services	678	190	488	338	143	27	21	11	8
Division of Water Supply and Pollution Control	285	75	210	88	122	16	13	2	1

Table 4.—*Payments to States, fiscal year 1960*¹
[In thousands]

State	Venereal disease special projects	Tubercu- losis control	General health	Mental health	Cancer control	Heart disease control	Water pollution control	Hospital and medical facilities construction	Waste treatment works construction
Total	\$2,371	\$3,993	\$14,985	\$4,911	\$2,190	\$2,905	\$2,659	\$143,433	\$40,295
Alabama	45	92	403	98	51	78	58	4,623	991
Alaska	—	21	61	41	3	—	8	—	—
Arizona	18	54	127	37	17	1	24	1,095	463
Arkansas	75	64	255	55	34	43	40	2,967	1,029
California	33	290	805	326	151	148	137	6,458	2,385
Colorado	14	33	165	44	25	41	30	1,300	499
Connecticut	10	38	131	54	26	40	46	557	—
Delaware	17	15	28	34	5	15	47	1,124	20
District of Columbia	63	37	50	40	9	32	18	392	342
Florida	76	91	393	119	56	77	61	4,353	1,315
Georgia	196	85	426	111	56	82	63	5,015	1,115
Hawaii	—	22	58	41	8	32	26	738	—
Idaho	5	15	91	41	13	34	20	1,312	673
Illinois	205	236	626	235	56	110	114	5,923	1,589
Indiana	—	77	340	112	52	69	67	3,704	1,148
Iowa	10	35	262	71	22	34	43	2,793	589
Kansas	43	34	206	55	31	37	36	2,017	801
Kentucky	357	103	357	91	48	73	56	3,671	654
Louisiana	52	76	330	89	46	66	53	5,287	546
Maine	—	23	108	40	18	38	26	1,194	425
Maryland	42	82	213	74	34	55	52	1,549	597
Massachusetts	—	100	332	108	63	71	76	3,087	763
Michigan	86	148	535	196	85	96	91	5,774	1,012
Minnesota	4	49	301	89	40	63	80	3,128	878
Mississippi	70	60	356	74	44	51	51	2,902	909
Missouri	46	94	351	111	58	72	54	4,621	1,294
Montana	15	21	83	41	13	25	19	1,001	346
Nebraska	13	24	155	35	24	10	1,175	1,175	706
Nevada	7	12	43	27	5	9	9	386	136
New Hampshire	—	12	56	39	10	13	24	1,086	160
New Jersey	65	108	351	139	66	74	80	1,508	1,090
New Mexico	24	32	110	41	15	37	21	215	461
New York	317	393	1,000	383	180	156	169	5,664	1,565
North Carolina	135	87	475	135	66	56	77	7,757	747
North Dakota	13	16	99	41	14	35	20	830	343
Ohio	33	174	643	233	109	113	114	6,253	1,258
Oklahoma	18	53	286	62	34	54	35	2,080	495
Oregon	10	34	159	46	19	31	31	1,092	634
Pennsylvania	122	233	803	283	137	137	135	7,921	1,897
Rhode Island	—	22	65	40	12	25	37	1,109	303

South Carolina.....	94	60	316	75	38	67	53	1,637	665
South Dakota.....	8	9	102	41	15	8	21	964	220
Tennessee.....	88	104	395	102	50	74	62	4,968	1,008
Texas.....	137	160	834	199	116	132	108	6,242	2,108
Utah.....	---	13	63	39	6	16	22	981	417
Vermont.....	---	15	53	41	8	28	20	494	315
Virginia.....	55	97	370	108	50	51	60	4,310	1,193
Washington.....	4	33	205	65	32	52	41	1,973	1,977
West Virginia.....	16	54	216	44	30	41	39	2,852	801
Wisconsin.....	7	60	315	99	43	66	62	2,601	1,045
Wyoming.....	---	10	53	40	7	20	15	577	643
Guam.....	---	9	9	31	1	8	---	83	---
Puerto Rico.....	35	147	339	74	37	71	23	1,990	43
Virgin Islands.....	7	7	7	22	1	4	5	---	---

¹ Additional amounts as follows were paid during fiscal year 1960: \$1,904,000 under title 1, Public Law, 911, 84th Congress, and \$6-105, 86th Congress, for the public health traineeship program; \$122,000 under Public Law 159, 84th Congress, for the Public Health Service air pollution training and demonstration programs; \$652,000 under Public Law 85-544, 85th Congress, to schools of public health for the provision of public health training; \$225,000 under Public Law 86-158, 86th Congress, for community cancer demonstration projects, including \$13,000 personal services in lieu of cash.

² Includes \$634,000 in services and supplies in lieu of cash.

³ Excludes \$242,000 paid to water pollution interstate agencies under Public Law 660 as follows: \$12,000 to New England Interstate Water Pollution Control Commission; \$8,000 to Interstate Commission on the Delaware River Basin; \$27,000 to Interstate Commission on the Potomac River Basin; \$52,000 to Interstate Sanitation Commission; \$116,000 to Ohio River Valley Water Sanitation Commission; \$3,000 to Klamath River Compact Commission.

Office of Education

I. Responsibility for Public Education

THE LOCAL SCHOOL DISTRICT, the State, and the Federal Government each have an important part to play in the growth of American public education. The role each assumes today in carrying forward this enterprise is linked to the history of the Nation from colonial times onward.

THE ROLE OF LOCAL COMMUNITIES

In the days of the early settlers, schools were maintained by various church congregations or were established in towns by action of the town councils. Before the middle of the 17th century, Massachusetts colonists began setting aside certain tracts of land for the support of local schools. This practice later developed into a fairly uniform policy throughout the New England colonies and was followed to some extent in the other colonies.

Since the birth of the Nation the States, while possessing legal authorization for the establishment and administration of their public schools have, nevertheless, delegated to local communities considerable responsibility, especially for the operational management of elementary and secondary schools and community colleges. In fiscal 1960 local agencies assumed about 56 percent of the cost of operating these schools.

THE STATE ROLE

In 1785, about 3 years before the ratification of the Constitution, the Second Continental Congress enacted the basic land ordinance, which regulated the disposition of public lands in the western territory and "reserved the lot No. 16, of every township, for the maintenance of public schools within the said township." In 1787 the same Congress, in one of its last acts, established the Northwest

Ordinance which declared that "schools and the means of education shall forever be encouraged" in the new areas.

In fulfillment of this directive, the people within each State have through their elected representatives determined the structure, the scope, and the means for meeting the educational aspirations of the citizens. These representatives have provided for a State department of education to be the chief educational agency at the State level to discharge in various degrees its major functions—leadership, regulatory, and operational—for the common school system. For higher education, there is yet no comparable agency at the State level in most States. At the present time about 40 percent of the total funds for the operation of public elementary and secondary schools are derived from State sources.

THE FEDERAL ROLE

The pattern of the Federal Government's concern for education which had been set in the acts of 1785 and 1787 was further established when Congress passed the Morrill Land-Grant Act of 1862. By this act, additional public lands, or their equivalent, were given to the States for the support of public higher education within the States. Since that time, numerous Congressional acts have assisted and supported our educational structure, always operating within the well-established policy of primary State responsibility.

The most prominent development during recent years in the field of financing public education has been a growing conviction on the part of a number of nationwide educational associations and organizations and of a large segment of the public, that the Nation must improve public education by increasing the school revenues.

In 1955 the White House Conference on Education recommended a substantial increase in funds for public education. Similar recommendations were urged by the President's Committee on Education Beyond the High School in 1957, in the Rockefeller Report on Education in 1958, by the Problems and Policies Committee of the American Council on Education in the same year, by the President's Science Advisory Committee in 1959, by the Educational Policies Commission of the National Education Association and the American Association of School Administrators in 1959, and by the White House Conference on Children and Youth in 1960.

THE UNITED STATES OFFICE OF EDUCATION

Established in 1867, the U.S. Office of Education continues to be the only Federal agency whose total concern is education. During the past few years as the problems of education have become more complex and solutions to them have increasingly involved the material and manpower resources of the Nation, the responsibilities and activities of the Office of Education have greatly enlarged.

This growth was the result primarily of a need to examine through research and study the whole educational process in order to discover new goals, new approaches, new applications, new measurements, in line with the demands of the times, and to administer additional legislative provisions and conduct the programs which grew out of these laws.¹

More recently, it became apparent that there were needs in education and needs to be met through education which could be supplied only through a nationwide pooling of resources, coordination of efforts, and exchange of experience and research findings. As a means toward this end, the Office of Education during this fiscal year increased its field staff to facilitate carrying on the basic functions of the Office.

Limited decentralization of certain Office activities in assigned areas had taken place as early as 1940. In implementing the provisions of the Lanham Act, the Office of Education provided professional consultative services to the Federal Works Agency in the program of school construction in housing areas developed for workers in national emergency efforts. These services required that specialists be available in an assigned geographic area on a continuous schedule. Legislation passed in 1950, providing financial assistance for school construction and for current school expenditures in federally affected areas, required the placing of 40 Office of Education specialists in regional areas to assist in administering the provisions of that legislation. Administration of the National Defense Education Act of 1958² (except title IX) required the appointment of 14 regional staff members—9 in the interest of higher education programs and 5 in the interest of programs administered through the States.

With the expansion of field services through the nine regional offices of the Department of Health, Education, and Welfare during fiscal 1960, the Office of Education made its basic services more immediately available to help meet educational needs and problems wherever they occur.

The Commissioner appointed a regional representative—an educational generalist with the background of an outstanding career and demonstrated ability in public education, administration, and higher education—to each of these nine offices. The regional representative acts for the Commissioner in providing information within his geo-

¹ The U.S. Office of Education was established by Congress for the purpose of collecting and disseminating statistics and facts, and promoting the cause of education. The Office had approximately 1165 employees at the end of fiscal year 1960. Its budget for salaries and expenses was \$9,600,000. Federally appropriated amounts were administered by the Office for the following Federal programs: Vocational education, \$40,863,393; land-grant colleges, \$5,051,500; school assistance to federally affected areas, \$247,435,000; cooperative research, \$3,200,000; library services, \$6,131,000; and defense education activities, \$159,700,000; expansion of teaching in education of the mentally retarded, \$1,000,000.

graphic region. These services, like all those offered by the Office, are conducted in harmony with the principle of rendering assistance without interference.

This administrative extension of the Office of Education makes possible a much more intimate appraisal of the problems and needs of an area or specific locality and reduces the response interval between field and Office to a minimum. It makes available to the Commissioner the services of nine field representatives through which he keeps abreast of educational needs and developments throughout the Nation. In supplying information and counsel for the conduct of conferences, workshops, and demonstrations, this arrangement permits better coordination of effort between Department of Health, Education, and Welfare and regional offices, State educational agencies, and private institutions.

The Future Role of the Office of Education.—A number of developments for the improvement and extension of Office services are on the horizon. In order to plan properly for the schools of tomorrow, there must be a continuing supply of comparable, complete, accurate, and up-to-date information about the conditions and progress of educational and cultural institutions and activities in our own Nation and in other countries of the world as well. Development in cooperation with the States of a modern nationwide intercommunicating system for providing needed information about education is a matter of major importance. It is necessary first of all to obtain agreement on standard definitions of needed items of information and their universal application. Competencies in educational accounting, high-speed machine and electronic technology for recording, storing, retrieving, and analyzing are essential elements of such an intercommunicating system of educational information. Thus, a truly modern Office of Education data center, serving the needs of the Nation in cooperation with State and local data centers, would provide a sound basis for decision making about education.

Research and experimentation for the improvement of educational practices must be accelerated, and the Office must stimulate ways to bring about prompt and comprehensive extension of newly discovered, adequately tested and improved methods and media of instruction. Research must also probe the foundations of education in an endeavor to discover the motivations of human behavior and the processes of learning.

The leadership role of the Office of Education is a major function. As coordinator of the Nation's educational interests, the Office can, through the experience and specialized training of its professional staff members, identify important emerging educational issues and problems of concern. It can stimulate study, deliberation, and plans

for conferences, and provide demonstrations through which it can alert the profession and the people concerning these issues and problems, and it can encourage consensus in ways to deal with them. It can diagnose incipient educational ills or weaknesses and help to solve those problems before they become critical. Finally, it can identify imbalance and recommend action necessary to restore a sound balance in the total educational structure. Only thus can educational opportunity be genuinely available to every person in the Nation.

Fiscal year 1960 was a year for stock-taking. Great issues, national and worldwide, were focused in this year. In the status of each of these issues education, or the lack of it, had its part, and in the outcome of each issue education will play a much larger and more crucial part. Whatever the goals may be, education today is a paramount concern of every nation. Never before has education been so linked with the personal destiny of every citizen and with the destiny of the free world.

The past decade has witnessed the greatest revival of popular interest in education in the United States since the land-grant college movement placed the specific benefits of higher education within the reach of more of the people. The great debate of the past 10 years has surged around every feature of our educational structure—educational philosophy and goals; organization, administration, and finance; housing and facilities; curriculum and methods. Nothing has escaped the scrutiny of both educator and layman.

The problems which face education today, however broad and diverse, may be summarized in five simple questions: (1) What are our educational goals? (2) How shall we provide physical facilities and equipment? (3) How shall we provide teachers and how shall they be trained? (4) What shall we teach to insure full development of the potential of each student? (5) How shall we teach—what communications media shall be used?

These problems are the result, in general, of five underlying causes, conditions, or forces present in our society today. They are: (1) the population explosion and changing population structure, (2) the expansion of knowledge, (3) the urge for quality or excellence in education, (4) the national emergency—the threat of communism, and (5) the need for international educational cooperation and assistance. As we have become increasingly aware of these basic causes, the importance and urgency of the problems engendered by them have likewise increased.

Throughout the body of this report these problems and their causes will be discussed, not by answering directly the questions enumerated or in probing the causes listed, but by showing, wherever appropriate, the relationship of Office activities to them.

In this report, these are treated in a discussion first of elementary, secondary, and adult education; second, of higher education; third, of research and experimentation; fourth, of educational statistics and information; and fifth, of international educational relations.

II. *Elementary, Secondary, and Adult Education*

THE ROLE OF STATE DEPARTMENTS OF EDUCATION

The emerging position of State education agencies, as primary leaders in the accelerating improvement of American education, is one of the most significant phenomena of recent years. This expanding State role may well be the key to providing education adequate to the Nation's increasing responsibilities, while preserving our traditional and valuable decentralization of responsibility in education.

State leadership, which was originally limited primarily to collecting and reporting information, and the support of minimal standards through teacher certification, has expanded in uneven stages, in response to public realization of increasing educational needs. Vast economic, social, and technological changes and the enormous growth of public education in the 20th century made new demands upon our decentralized system of education. As public education grew in size and complexity, people came to demand a more comprehensive realization of the democratic ideal of equality of educational opportunity, an essential feature of a free society.

This demand could not be met when local school units existed in isolation. Wide differences in ability among local communities to support educational programs, and the inadequate programs offered in some localities, came to be looked upon as matters affecting the welfare of all people in the State and all people in the Nation.

In recent years, new patterns of State support in financing of education to guarantee every child in the State a foundation educational program have been adopted in many States. With statewide minimums set, the State agencies then assisted and encouraged local units to exceed the minimums and to diffuse good practices. In meeting the demands for more and better services required by a rapidly expanding public education enterprise, the State departments have been elevated to a leadership position.

To administer effectively their expanded programs, more suitable structures were required in the State departments of education. Particular attention has been given recently to better methods of selection, composition, and tenure of State boards of education. The boards have been given more authority and responsibility over the total State educational program. There has been special concern to find more suitable methods for selecting the chief State school officer and his

staff. The position of chief State school officer continued to gain in prestige and importance during the past few years as persons of outstanding competence and ability were selected to administer expanded programs.

In the 1950's every State department of education was reorganized in some manner to promote structural unification or functional coordination. Laws were passed in eight States to give the State board of education the power to appoint the chief State school officer. Twenty-two States now do this. All States enacted legislation in the 1950's to promote functional coordination of State department of education operations. This was accomplished mainly through a more precise delineation of the duties and responsibilities of State boards of education and chief State school officers. The trend has been toward increasing the authority of the State board of education to determine the broad policy and direction of the State public educational enterprise; concurrently, the chief State school officers have been given more authority as professional leaders and administrators.

With State and local educational goals set at higher levels, the people in the States want to see tangible results that justify the increased expenditures. They want to know what kind of educational programs they should have, how they can get good teachers, how instruction can be improved. The State departments are, therefore, increasingly emphasizing *quality* factors in their leadership and research programs.

An outstanding recent example is the progress made by the States in providing leadership services to enable local schools to improve their science, mathematics, and foreign language instruction. In this they were aided by provisions of title III of the National Defense Education Act. Two years ago there were only 33 State specialists in the fields of science, mathematics, and foreign language; now there are 194. The significance of this increase is indicated by the activities of these specialists. These supervisors are developing State standards for equipment and minor remodeling of classrooms, assisting in determining teacher qualifications, conducting local and regional workshops for teachers working on local curricular projects, demonstrating equipment and effective teaching techniques, undertaking research in the fields concerned, and developing curriculum guides. Aided by title V(A) of the NDEA, State departments of education increased the number of their guidance and counseling personnel from 76 to 177 during the past 2 fiscal years.

The State educational agency can give better leadership and service when it has the facilities, personnel, and know-how to assess the status of the educational program within the State at any given time. States have been making substantial progress toward a more rapid

and uniform system of gathering, analyzing, interpreting, and disseminating information about education. Federal financial assistance authorized in title X of the NDEA has greatly intensified and amplified activities for providing more adequate information about education. Working closely with the local educational agencies and the Office of Education, State educational agencies are improving record-keeping procedures and are adopting standard educational terminology and units of measure. During the year, the Office of Education published handbooks with standardized definitions on financial accounting for school activities and on property accounting for State and local school systems. These handbooks supplement two others recently developed, one on basic items of educational information at the State level and the other on financial accounting.

Timely and reliable facts and figures will further advance the increasingly important research function of the State departments of education. This research function promises to become central to all departmental activities.

State leadership is being directed toward the full and best use of all available resources, including the findings of research. It has fostered improvements through the development of local initiative and experimentation. Though State departments have been strengthened with more money and with more power and authority, they are exerting their greatest influence by the increasing excellence of their leadership.

QUALITY EDUCATION FOR ALL

Identifying talents of all children and youth and providing quality education for all are recognized to be increasingly important in a rapidly changing and highly interdependent, complex world. Providing educational opportunities that will help each individual become as effective and as productive as his ability permits is essential, not only for his own well-being, but for the good of the whole society, because quality education for each fosters the continuous improvement of democracy for the benefit of all.

IDENTIFYING TALENT OF ALL YOUTH

By 1975, according to U.S. Department of Labor estimates, this country will have need for more than twice as many scientists, engineering workers, technicians, and college workers as it now has. The number of teachers needed in elementary and secondary schools is expected to increase by approximately 25 percent, and a rise of 30 percent is expected in the number of physicians. Job opportunities for skilled workers and clerical workers will increase by about 25 percent—while little or no growth is expected in the number of needed unskilled workers.

National manpower needs in the years ahead call for the full utilization of the talents of all citizens. Modern society requires the special skills of the scientist, the physician, the linguist, the teacher, the technician, the creative artist, and the operator of complex machinery. It is, therefore, imperative for the Nation and the individual that every youngster have the education appropriate for his special talents and needs.

During the past year many school systems throughout the United States took steps to insure the full development of all children. To identify the strengths of children, educators used a variety of methods and techniques. In particular, guidance and testing programs during the past year received added attention as a means of finding, conserving, and developing all types of talent. The underachiever, the school dropout, the student following a course of study not suited to his abilities and aptitudes, the slow learner, the culturally deprived youngster—all represent an incalculable loss to themselves and to the Nation. A trained guidance counselor, working in cooperation with teachers and parents, can assist the student in understanding himself, his environment, and his educational and vocational opportunities and requirements. The counselor thus helps the student to achieve self-motivation—one of the prime objectives of the guidance process. Organized programs for the identification of abilities, aptitudes, and skills of secondary school students are now available to about 75 percent of the Nation's public and nonpublic secondary schools.

Although an equivalent of 15,800 full-time guidance counselors were employed in 1959, there was still need for an estimated 20,000 additional secondary school counselors to raise the existing ratio of 1 counselor for every 600 students to the desired ratio of 1 for every 300 students. Qualification standards for counselors vary, but there is a definite trend to require a master's degree, or the equivalent with a guidance major for full-time counselors.

The importance of early identification of a child's potential is now generally recognized. However, the methods and techniques used in working with elementary school children must be adapted to their age and level of maturity. Attempts are now being made to define the problems of training specialists on this level. As yet, only a few colleges are offering adequate training programs for elementary school guidance workers. Essentially the elementary school teacher should serve as counselor with appropriate assistance from guidance specialists.

Academic abilities and aptitudes on both elementary and secondary levels can be measured with more confidence than those in the social and esthetic areas. However, abilities in music, art, creative writing, the dance, and social participation can be identified by teachers through

records and observation of present performance. Evaluation based on these records and observations can be used to some degree in counseling the students.

The passage of the National Defense Education Act of 1958, which made special provisions for State-administered programs of counseling, guidance, and testing, has contributed not only to the identification of talent in mathematics, science, and foreign languages (areas initially receiving the greatest attention), but also to the discovery of students talented in other areas.

QUALITY EDUCATION AND SCHOOL LIBRARIES

School administrators, in working toward quality education, are concerned with the improvement of school library services. Recent publications of various national educational organizations reflect renewed interest in the potentialities of the school library for strengthening elementary and secondary schools. *Elementary School Buildings—Designs for Learning*, published in 1959 by the Department of Elementary School Principals, NEA, in a discussion of functional design, states on page 146: "Elementary school libraries will soon be conceived as teaching materials centers rather than static book collections. Expanding elementary school library services will soon require suites of rooms to accommodate not only book collections and reading tables but also larger informal reading and browsing areas, librarian work offices, inactive material storage space, professional teacher libraries, student typing and writing cubicles, recording and listening tables, and science equipment areas." In the November 1959 issue of *The Bulletin of the National Association of Secondary School Principals*, Paul E. Elicker, then executive secretary of the Association, states, "Today the school library is an essential part of the teaching-learning situation in all effective secondary-school programs." *Standards for School Library Programs* published in March 1960, by the American Library Association was prepared by the American Association of School Librarians in cooperation with 19 national educational and lay organizations and is based on research in school libraries of superior schools. These standards reflect, therefore, two strong trends in school library service—cooperation of school librarians with other educators, and research for school library development.

However, a post card statistical survey of centralized school libraries and librarians for 1958-59 in all school districts of 150 or more pupils, recently completed by the U.S. Office of Education, showed wide gaps between averages for the schools in the survey and the new national standards of the American Library Association for school libraries. Only 34 percent of elementary schools in the survey had centralized school libraries, and only 65 percent of the school librarians serving

public schools met minimum standards for professional education. In 1958-59, there were over 10 million pupils enrolled in elementary schools without libraries, and over 600,000 pupils enrolled in secondary schools and combined elementary-secondary schools without libraries. The average expenditure during 1958-59 for books even in schools *with* centralized libraries was only \$1.60 per pupil, whereas the national A.L.A. standard is \$4 to \$6 per pupil. The average number of volumes per pupil in total centralized school libraries was 5.3; the new standards recommend 10 books per student. These statistics give evidence of the need for augmented developmental services and research in problem areas for the school library field.

Several major research studies of national scope concerned with school libraries have been undertaken. Under the Cooperative Research Program of the U.S. Office of Education, phase I of a study was made by Rutgers University, to develop instruments to measure the effectiveness of elementary school libraries, and determine the relationship of scores on these instruments to other factors in the school and community situation. In phase II, not yet undertaken, these instruments will be applied in a large and representative group of elementary schools. *State Department of Education Responsibilities for School Libraries*, a survey conducted by the U.S. Office of Education, at the request of the Council of Chief State School Officers, was published in June 1960. It is a status study of State department of education services to school libraries in the 50 States of the United States. The Study Commission of the Council of Chief State School Officers is developing a policy statement on State department of education responsibilities for school libraries, based on this status study. The project is an example of cooperative endeavor by administrators and school library supervisors to improve the quality and scope of school service through State department of education leadership.

BALANCE IN THE CURRICULUM

Concurrent with the attention being paid to the identification of the abilities of all youth is an insistence upon curricular balance. For three years prior to 1959-60, the education of the academically talented student received particular emphasis and the curriculum was shaped to some extent to his needs. This emphasis continues, but during the past year additional efforts were made to secure a balance in the curriculum through increased attention to the talents of all youth. The trend toward curricular balance can be discerned in efforts to improve instruction for each pupil through experimentation, inservice education of teachers, and research in curricular organization and content.

In many schools the process of identifying the pupil's abilities and needs begins as early as the first grade and continues until the pupil

leaves school. Cumulative record cards which show a pupil's mental and achievement test scores, his grades, personal interests, hobbies, and various personal characteristics are being used by more and more teachers as a resource to improve the quality of instruction and to achieve a balanced education for each pupil. These cumulative records are usually maintained by teachers and guidance counselors who may gather additional information about a student's home and school problems and activities.

The trend toward a more balanced curriculum is evident also in the general improvement of instructional offerings in the various subject matter areas. A better balance in the areas of science, mathematics, and modern foreign languages is being achieved through the use of up-to-date laboratory equipment, made possible under the provisions of title III of the National Defense Education Act. By extending the teaching of these subjects to the full range of elementary and secondary grades, a greater number of our youth are receiving balanced, quality instruction in these areas of knowledge.

In the English language arts, the teachers are currently concerned with each pupil's special aptitudes and problems in speaking, writing, and literary appreciation; his strengths and weaknesses in reading and in the use of oral and written language; his reading interests and level of literary appreciation; and the works of literature read by the pupil as well as his reaction to each selection. Through such means as these, a highly individualized program of English language arts is being made available to the pupil.

In the social studies area greater emphasis is also being placed on citizenship education for its exercise in our own Nation and for world understanding. Through the study of geography and associated information concerning the background and customs of the peoples of other lands, through international exchange correspondence and projects, and through the study of a wider range of modern foreign languages (now begun in the elementary grades more frequently than in the past), students are becoming better equipped for social and political responsibility in today's world. From kindergarten and elementary grades through secondary school levels, social studies programs are giving priority to citizenship education.

The Office of Education assisted in the promotion of efforts to make health and safety teaching more effective than ever before, with the idea of helping all youth, academically talented and otherwise, to profit fully from their program of studies.

Many educators now believe that the different forms of creativity whether they occur in scientific invention, industrial design, business management, astronomy, mathematics, education, housekeeping, art, music, drama, and dance, or the dynamics of personal relationships, are all facets of the same basic phenomenon of creativity.

The promotion of arts experiences in the curriculum is one way to help educate for creativity. Realizing that the arts as well as the sciences can be explored as parts of the same reality, study of the various arts is important in balancing the curriculum experiences in our schools.

Teachers must help children and young people appraise their abilities, search out their talents, and know of the opportunities available to them in our technological society. Industrial arts enable students to express themselves concretely, think in special relationships, manipulate materials toward definite goals, control tools and machinery, develop pride in personal work. To be liberally educated in today's world, the individual needs technical understanding.

The trend toward better curricular balance is but one indication of the effort now being made in schools throughout the Nation to assure a quality education for every individual. This abiding concern for the individual was reflected in the theme of the Golden Anniversary White House Conference on Children and Youth held in fiscal 1960—"a creative life in freedom and dignity." The 7,600 conference participants, representing all age groups and all walks of life, recognized the vital importance of making special educational efforts for the individual in the decade ahead. Additional evidence of this concern is the emphasis now being placed on vocational education and special education for exceptional children and youth.

The achievement of balance in the curriculum is a difficult and continuing problem. If schools are to maintain the wholesomeness of experience, all aspects of learning must be adequately represented. A curriculum has to be so designed that general needs of all are met at the same time that special needs of the talented are provided for. The single most significant development of our aerospace age is the *increased rate of change*. Schools keep this fact in mind as they strive for a balanced curriculum for American children and youth.

MEETING VOCATIONAL EDUCATION NEEDS

Many youth desire to prepare for various occupations by pursuing secondary school courses which are designed to fit persons for useful employment. This vocational preparation is a Federal-State program of cooperation which has, from its beginning in 1917, been based upon the fundamental idea that vocational education is essential to the national welfare. Although its curriculum is designed to produce well-rounded citizens, its special purpose is to provide education to prepare workers for occupations in the fields of agriculture, distribution, home making, trades and industry, practical nursing, and for occupations requiring highly skilled technicians.

In recent years vocational education programs have been directed toward a larger segment of the secondary school enrollment. For ex-

ample, home-making teachers, school administrators, and supervisors, working toward the goal of strengthening family life, have sought to redirect their programs to reach more high school students—the college bound, those who marry soon after graduation, and those who go immediately into a wage-earning occupation.

The Office of Education has recently stimulated action and aided the States in the development of research, especially through coordinating cooperative research projects, to provide sound bases for improving and revising secondary school programs for serving a larger number of students in vocational education fields.

Many well-prepared teachers of home economics are needed to meet the growing needs. The States have made an effort to recruit and prepare more teachers and to evaluate teacher preparation programs to meet present-day needs. Foremost is the teacher's need for a liberal education and a professional education that will best fit her for broad responsibilities.

Enrollments in trade and industrial education for high school youth have increased annually for more than a decade. It is expected that enrollments will grow steadily as the need for additional skilled workers increases, as programs are organized in areas not now being served and as additional States encourage the establishment of larger units of school administration. Industry continues to decentralize, moving to expanding population areas.

Because trade and industrial education is generally offered in the more populous centers, many youth living in rural areas have had no opportunity to pursue courses in this field which lead to useful employment. Investigations are being made to determine ways by which youth in rural areas can acquire learning experiences which will prepare them for work in industry.

Recent technological innovations have caused great changes in job requirements of industry. Schools are recognizing the increasing need for curriculum review and revision to assure up-to-date course offerings for students who would seek employment in industry.

Conducted as a part of the program of trade and industrial education are an increasing number of courses in practical nurse education. Hospitals and other health agencies have cooperated in the development of new programs which provide, under professional supervision, both inschool instruction and hospital clinical experience. Improved teaching practices and curriculum materials have resulted from the combined effort of the States and local school authorities and the professional groups concerned with nursing and nurse education.

While the number of people engaged in farming is decreasing, the agricultural product today is constantly increasing. This fact, combined with the rapid increase in population and the increasing need

for able individuals with farm experience backgrounds, constitutes a vital problem for those who are responsible for vocational agriculture programs for farm youth. The successful farmer of today must continually keep up to date technically and mechanically; he must be able to make correct managerial decisions and successful business transactions. In this period of rapid social, economic, and technological change, some adjustment of the curriculum, therefore, will no doubt be necessary. The need for well-qualified teachers of vocational agriculture continues.

Distributive education in the secondary schools is a cooperative part-time inschool program and at-work experience to provide young persons interested in distribution with the required skills and knowledge. The curriculum has been strengthened to include a study of distributive organizations; of marketing, including wholesaling, retailing, buying, selling, and pricing; of factors affecting marketing, including advertising, display locations, and lay-out; and of the consumer in the marketing process.

The Area Vocational Education program, providing for the training of highly skilled technicians under authority granted by title VIII of the National Defense Education Act, has now been in operation for two years. In fiscal 1960, every State participated in the program. Preparatory courses were available to secondary school students in the upper levels of their classes, to high school graduates who wished to pursue technical training in their thirteenth and fourteenth years of schooling, and to adults of any age who were able to meet admission qualifications.

Rigorous preparatory training programs, usually 2 years in length, were organized for a number of technician occupations, including electronics, mechanical drafting and design, instrumentation, engineering aids, industrial chemistry, data programing, and metallurgy. Short extension training courses involving the applications of science and mathematics were offered in the fields of communications, data processing, electronic drafting and design, industrial planning, instrument control, power operation and distribution, jet and rocket propulsion, and airframe structure.

Large enrollments continued in the various Area Vocational Education programs during 1960. Thus, the Area Vocational Education program is providing new opportunities for the training of many youth and adults who were previously unable to obtain training because they did not live in or near a center where training was available.

Vocational Education for Adults.—Vocational education for adults plays an essential role in maintaining America's high rate of production and consumption and, as a consequence, its high standard of living. Adult workers in any field, through training in skills and

knowledge related to their occupations, can adapt themselves to technological changes and other developments in their occupations, become more productive, prepare themselves for advancement, and increase their earning capacity. Vocational education programs provide instruction for out-of-school youth and adults both employed and temporarily unemployed in part-time schools and extension classes conducted at hours of the day or evening when they are free to attend. More than half of all persons enrolled in programs of vocational education are adults or youth who have left the full-time school. The needs of special groups are more and more recognized—mobile families, aging family members, young homemakers, and handicapped homemakers.

The general character of several occupations is changing. The need for related technical knowledge by workers in many occupations is reflected by a continuing demand for trade extension training and the reevaluation of course content in several programs. Evening trade extension programs have expanded to accommodate employed workers who need skills and related knowledge to retain their present jobs or to prepare themselves for promotional opportunities. The nature of the instruction is flexible so as to adapt to the changing technological needs of the employed worker.

Distributive education focuses directly on distributive personnel within the framework of their careers. About 88 percent of the total enrollment in distributive education is accounted for by extension classes, which encompass training for broad or specialized career objectives and for problem solving at high levels of distributive businesses.

The States have recently devoted considerable attention to the problems of young men who are striving to become established in the business of farming. The pressure of continuing to remain on the farm in the face of progressive narrowing of the margin of profit derived from farm products is great. In view of these problems and pressures, there has been a substantial increase in the number of students who have enrolled in vocational agricultural education classes during the past few years. Adults who are established in farming have attended classes in relatively large numbers.

In Area Vocational Education programs in fiscal 1960 the number of short unit extension courses (on-the-job training courses) for workers employed in technical pursuits was larger than the number attending preparatory (inschool) courses. Some unique courses such as electronic data programing, and vacuum tube technology were organized to meet the specific employment needs of students who had left the full-time school.

Industry, distribution, and agriculture require men and women with a high degree of manipulative skill, technical knowledge, and adaptability. The percentage of unskilled workers in our labor force is steadily declining; the percentage of semiskilled and skilled operatives is increasing. Technological advances will continue to increase the demand for highly skilled technical workers. Vocational education programs, which serve both youth and adults, will therefore be of increasing importance to our social and economic life in the years ahead.

MEETING SPECIAL EDUCATION NEEDS

Special education, within the framework of American education, is dedicated to providing suitable educational opportunity to every exceptional child who can benefit. Included are those who have marked physical handicaps, severe mental limitations, serious social and emotional problems, as well as those with remarkable gifts and talents. To open the doors of opportunity the school systems must make many adjustments and add special features to the usual school program. Some children and youth can progress best in special schools, others in special classes in regular schools. Some need only part-time special education services. For other children, the school must go to the hospital, the institution, the convalescent home, or under certain conditions to the child's own home.

A comprehensive program includes careful evaluation and placement of children, adjustments in curriculum, specially prepared teachers, adapted school housing and equipment, and coordination with other related professional services. Few American communities have reached this ideal for all of their exceptional children, but it is a goal toward which the Nation as a whole is moving at an accelerated pace.

A quarter of a century ago, only about 750 local public school systems reported enrollments of exceptional children and youth in special education programs. By 1948, that number had doubled, and 10 years later it had reached a total of nearly 3,700. The 1958 survey revealed that many of these school systems were located in less populated sections of the country and that some draw into their programs handicapped or gifted children from as many as 10 or 20 of the neighboring towns and villages.

Another indication of progress in this segment of American education is the rapid rise in the number of handicapped and gifted children in various types of special education programs. Enrollments in special schools and classes of the public day schools alone increased about 130 percent in the decade 1948-58. This is more than three times the rate at which the *total* public elementary and secondary school enrollments increased during the same 10-year period.

The special education enrollments for each area of exceptionality for 1958 as reported by the local public school systems in 48 States are given below:

<i>Area of Exceptionality</i>	<i>Number of Pupils</i>
Total.....	860, 814
Blind.....	2, 742
Partially seeing.....	8, 266
Deaf.....	6, 162
Hard of hearing.....	13, 037
Speech impaired.....	474, 643
Crippled.....	28, 355
Special health problems.....	21, 714
Socially and emotionally maladjusted.....	27, 447
Gifted.....	52, 005
Mentally retarded (upper range).....	196, 785
Mentally retarded (middle range).....	16, 617
Other ¹	13, 041

¹ "Other" includes the following pupils reported in combined categories of exceptionality: Blind and partially seeing, 119; deaf and hard of hearing, 1,993; speech impaired and hard of hearing, 4,493; crippled and special health problems, 4,686; special health problem and socially maladjusted, 22; upper and middle range mentally retarded, 1,403; and multi-handicapped, 325.

When public and private residential school enrollments (based on preliminary tabulations of the 1958 survey) and estimates of private day school enrollments are added, the total number of handicapped and gifted pupils receiving special education may well reach a million and a quarter. Nevertheless, special education programs are lagging far behind actual needs. While the arrears vary somewhat from one type of exceptionality to another, it is estimated that at present over the total program, not more than 1 child in 4 is receiving specialized education suitable to his needs. In the field of mental retardation, for example, of the estimated number of more than 1 million children of school age needing special educational services, approximately 243,000 were reported in special classes in both day and residential schools in 1958.

Although there are many reasons for this lag—for example, the fact that many exceptional children live in areas which are remote from centers where programs of special education have been developed—the principal deterrent to growth at present is lack of qualified personnel. In recognition of this need, the Office of Education, in collaboration with leaders throughout the Nation, has conducted a nationwide study and published a series of reports on the competencies which are desirable for teachers and other special educators in the various areas of exceptionality. State departments of education are continuing to develop and improve certification standards for teachers in the specialized areas.

To assist in relieving the critical shortage in qualified personnel, a graduate fellowship program has been developed in one of the areas of exceptionality under the provisions of Public Law 85-926. Grants for fellowships are allocated to colleges and universities for the preparation of college instructors to conduct programs for the training of teachers of the mentally retarded. Grants for fellowships are also made available to State educational agencies for the preparation of leadership personnel to direct and supervise educational programs for the mentally retarded.

A third aspect of the program being developed under provisions of Public Law 85-926 will be initiated in fiscal year 1961. Grants will then become available to stimulate the development of graduate programs in the education of the mentally retarded in those parts of the Nation where opportunity for professional preparation in this field is either nonexistent or inadequate.

During 1960, which was the first year of this program, grants were made for $177\frac{1}{2}$ fellowships, at an average individual cost of about \$5,600 and a total cost of about \$994,800. Of these, $84\frac{1}{3}$ were used by 19 institutions of higher learning (under sec. 1), and $93\frac{1}{6}$ were used by State educational agencies (under sec. 2). All but 7 States participated in the first year of the program. As these figures indicate, there has been a vigorous response from all parts of the Nation to this opportunity for advanced study in the field of education of the mentally retarded. Experience indicates that not only will the demand for these fellowships continue, but that in the years ahead there will be keen competition for the fellowships.

Progress toward the goal of securing sufficient numbers of qualified special educators has, in recent years, gone hand in hand with progress in attaining new knowledge and new insight into some of the crucial problems confronting educators of the various types of exceptional children. The contribution of the Federal Government, particularly through the cooperative research program of the Office of Education, has been a significant one. From the inception of this program in July 1956 to the present time, contracts have been drawn with colleges, universities, and State education agencies for somewhat more than 100 research projects in the field of special education.

Nearly two-thirds of these studies focus on the education of mentally retarded children. The remaining one-third center around crucial problems in the education of children who are blind, deaf, hard of hearing, speech impaired, socially maladjusted, or gifted. Findings from a large number of these research projects are already available for use in making improvements of existing programs or as a basis for planning new programs for handicapped and gifted children.

Chief among the byproducts of this relatively new nationwide focus on research in the education of exceptional children has been an intensified interest among teachers in the findings of experimental studies. With this activated interest, supported by continued interpretation and communication of findings, it is anticipated that today's research will be effectively translated into tomorrow's educational programs for exceptional children and youth.

MEETING LIFELONG-LEARNING NEEDS

Lifelong learning is rapidly becoming a recognized and legitimate concept in American education. The rapidity of technological development and the complexity of present-day social, economic, and international problems has made it necessary for education to become a process of lifelong learning to enable each citizen to function efficiently as an individual and to contribute effectively as a citizen.

During the past year a leading educational periodical, *The Overview*, cited statistics which indicated there were more adults in the United States engaged in formal programs of education than there were students enrolled in schools from kindergarten through graduate school. The Bureau of the Census in the October 1957 *Current Population Survey* estimated that about 9 million adults were attending formal classes which met three or more times. Additional millions are attending educational programs of an informal nature.

Organized lifelong learning is encouraged, sponsored and operated by many types of institutions, agencies and organizations. Among these are our public school districts, public and private community or junior colleges, public and private colleges and universities, private schools specializing in programs such as trade or business oriented enterprises, labor organizations, businesses and industrial establishments, public and school libraries, the Agricultural Extension Service, hospitals, museums, various government agencies, and the many clubs, associations, and voluntary groups which provide a planned educational program for their members or for the general public.

The various programs of adult education are as numerous as are the bodies of knowledge known to man. These programs include civic and public affairs, general education (including most of the common areas of study), home and family living, Americanization or training for future citizenship, technical education for the development of occupational or business skills, agriculturally oriented training programs, education for the worthy use of leisure time, personal and group relationship training, remedial education, health and safety education, religious training, depth education in professional or managerial skills, and competencies and training oriented to the functions of our armed forces.

Methodological approaches to the education of adults are quite different from those used on other levels of education. Studies may be carried on through formal classes, discussion groups, forums, television and radio education, correspondence or home study, conferences and institutes.

Technical education for adults has been stimulated through grants and leadership provided under title VIII of the National Defense Education Act. In the past year, four State departments of education have added personnel who are responsible for adult education programs.

Because adult education programs have a variety of sponsors and because the importance of lifelong learning has only recently been recognized, there is great need for the cooperative development of standardized terminology and definitions through the creation of a handbook of basic items on adult education. Until this is done, it will be impossible to describe satisfactorily the magnitude and status of adult education or to collect adequate and consistent data. The Office of Education has proposed that such a document be developed.

The demand for leadership personnel educated specifically for adult education roles has been increasing. Heretofore, many of the administrators and teachers in adult education, of necessity have had to obtain their training and experience outside the field. Today, however, 15 universities provide graduate education through the doctorate in the field, and many others offer one or more courses at the graduate level. Many universities are now studying the development and/or expansion of their graduate training programs in adult education. The Office of Education has provided consultative leadership to the Commission of Professors of Adult Education in an effort to clarify and systematize graduate education programs. Under title IV of the NDEA (National Defense Fellowships), the Commissioner of Education has approved at one university a graduate program of study in adult education for the training of doctoral candidates and has awarded five fellowships for study in this field.

There is urgent need to establish a clearinghouse for the nationwide collection and dissemination of information on all aspects of adult education, including a bibliography of published and unpublished research studies. During fiscal 1960 a committee representing all national-level organizations serving adult education met to develop a plan for such a facility, including the coordination of services from organizations now serving as clearinghouses in specific areas of adult education.

An expanded program of research relating to adult education is being stimulated by the Office of Education. A Cooperative Research project, entitled "Attitudes Toward Adult Education by Social Class"

is currently being conducted at the University of California at Berkeley. An exploratory conference of persons engaged in adult education research was held during this year to discuss, among other topics, research completed, in progress, or projected. During the past year, one issue of the *Review of Educational Research* was devoted to adult education.

The education of the migrant is another area of particular concern to those in adult education. Adult educators and other citizens are working vigorously to solve the problems related to cultural deprivation, lack of occupational training, and apathy toward citizenship responsibilities.

Adult educators are also concerned with the education of older citizens. The forthcoming White House Conference on Aging has stimulated interest in education for older citizens. In addition, every State is conducting research in this area; and, on the local level, many public school systems are experimenting with programs for aging citizens.

Adult education is concerned with individuals' needs, and many of these needs are of a highly specialized nature. The growing awareness and acceptance of the principle of lifelong learning indicate the necessity of a greater allocation of America's educational resources to this task. Of the total enrollment in programs of vocational education for which grant funds were used, about 50 percent were persons who had left the full-time day school. Most of them were employed workers. Discussion of these programs may be found on pages 193-195.

Lifelong Learning and the Public Library.—Opportunities for continuing education beyond formal schooling represent a fast growing need in these rapidly changing times.

Throughout the Nation, the American public library is helping to meet this educational and cultural need of the community it serves. In its individualized services, the public library recognizes no age or educational barrier, but provides resources and guidance alike to the business executive, the professional man, the farmer, the mechanic, the senior citizen, the teenager, the housewife, the immigrant, the schoolchild, the college student, and to the citizen studying local, national, and world problems. To all, the public library is a continuing source of aid in self-education, in cultural appreciation, in increased vocational competence, and in the constructive use of leisure time—truly a “university of the people.”

Basic to the fulfillment of these and related responsibilities is the public library's collection, a collection which today goes beyond books to include other informational media such as films, slides, pictures and prints, maps, recordings, documents, newspapers and magazines. These materials are selected and classified not only according to subject areas covered but also according to reading levels. Readers' advisory

services are provided to direct those who wish assistance in pursuing their studies.

In addition to this very personalized service to the individual, the public library also initiates, supports and participates in educational, civic, and cultural activities of the community. Program-planning guidance is provided to a variety of civic, service, cultural, and professional groups and organizations. Discussion programs, lectures, forums, exhibits, and film programs are sponsored. Many public libraries are engaged in radio and television activities such as book talks, story hours, and a presentation of highlights of the library's many resources and services.

Through a network of central libraries and neighboring branches, public libraries extend their resources throughout their area of service. Where branch libraries or stations cannot be established, bookmobiles provide public library service—in housing centers, recreation camps, at the village crossroads, at farm meetings, at nursing and convalescent homes, and at shopping centers.

The Library Services Act (Public Law 597, 84th Congress) authorizes an appropriation of \$7.5 million annually for 5 years for grants to States for the extension of public library service to rural areas without such service or with inadequate service. Since this act was passed in 1956, significant developments have taken place throughout the Nation.² Some of these developments, after 3 years, are listed below:

Thirty million rural people enjoy new or improved public library services.

State funds for the development of rural public library service have increased 54 percent, and local appropriations for rural public libraries have increased 45 percent.

County and regional library developments have brought public library service for the first time to over 1 million rural children and adults and substantially improved service to 7.6 million more.

Over 65 rural counties and an equal number of New England towns formerly without any public libraries are now receiving library service.

Approximately 200 new bookmobiles have been placed in operation in rural areas.

More than 5 million books and other informational materials have been added to the resources of rural communities.

Over 400 counties and 645 New England towns are participating in the demonstration and development of county and regional library systems by either introducing library service where it has never been available or by improving inadequate book and information services.

The library needs of rural areas are great. At the close of fiscal 1960 there were still approximately 25 million people in rural areas

² The Library Services Act was extended by President Eisenhower's signing of Public Law 86-679 on August 31, 1960, thereby extending the act for 5 years beyond June 30, 1961.

without public library services. There were about 21 million more who had not benefited by cooperative State-local-Federal library development projects under the Library Services Act. There were roughly 250 counties in the United States still with no public library services within their borders.

ORGANIZATION AND ADMINISTRATION

The upsurge of interest in improving and upgrading the public schools has led to an acute realization that quality education for every boy and girl is dependent upon sound local school system organization and administration. Efficiently organized school districts and more effective utilization of staff personnel are essential if the public schools are to be strengthened.

SCHOOL DISTRICT REORGANIZATION

In the American pattern of administering public education, good schools are dependent upon soundly organized local school systems. Experience has shown that small school districts usually have limited financial resources and, therefore, cannot provide a varied curriculum, adequate school facilities, comprehensive pupil personnel services, and competent teaching and staff personnel.

Of the Nation's 42,000 school districts (including nonoperating districts), 7 out of 8 have fewer than 1,200 pupils; only 3 States have no school systems enrolling fewer than 1,200 pupils.

In addition, school districts with fewer than 1,200 pupils average nearly 1 more teacher per 100 pupils than districts with more than 1,200; and districts with fewer than 300 pupils average nearly 2 more. These figures suggest the poor use of manpower by small districts, a waste which the Nation, faced with a continuing teacher shortage, can ill afford.

The number of school districts has been reduced from 95,000 in 1948 to 53,000 in 1957 and 42,000 in 1960. Most of the decrease since 1957 took place among districts enrolling fewer than 1,200 pupils. The decrease was most pronounced in systems enrolling fewer than 150 pupils. However, despite this trend, nearly half of all school systems still have fewer than 50 pupils.

The Office of Education through the consultative services offered by its specialists has aided State and local school officials and local planning groups in stimulating efforts toward reorganization of inefficient and inadequate school districts. The need for studies in local school system organization and administration becomes more urgent in the face of rising school enrollments, shortage of teaching staff, and increasing strain on local school finance sources. In carrying out these broad purposes, three exploratory studies relating to organizational characteristics of medium- to large-size school systems were completed in 1960.

STAFFING

America's program to provide a system of free public education for some 36 million children is founded upon the teacher as the basic unit of instruction. It is through this basic teacher unit that all other efforts in education—administration, housing, instructional services—are directed. It is only through the continued interest in and support of programs directed at improving the quality of teacher performance that organizations external to the classroom can influence significantly the educational program received by America's youth.

The growth in the school population has created a marked increase in the demands for teacher personnel. Furthermore, the changing nature of our society has, with new demands and expectations for the schools, created the need for certain specialized personnel offering supporting services to the classroom teacher.

During fiscal 1960, the Office studied the need for an increasing number of professionally qualified and competent teachers for America's public elementary and secondary schools. Related problems of improved staff salaries, teacher selection procedures, and of preservice and inservice teacher education were also explored. These studies will be of great benefit to those who plan and administer the programs in our public schools during the coming years.

Several factors have contributed to the development of programs directed at improving the quality of the instructional program. One, of course, is the combination of a great national interest in our schools and the increased lay involvement in school policy development.

An additional stimulation has come from national groups, either privately or publicly supported, concerned with special areas of the curriculum. Changes in methods of instruction, utilizing technological aids, and changes in organization for learning, such as team teaching, have profound implications for staff selection and assignment as well as for staff preservice and inservice programs.

Parallel to this concern for improving the quality of the instructional program is the need to attract a sufficient number of competent individuals into the teaching profession. Current estimates indicate a need for approximately 50,000 teachers annually merely to meet the projected increase in pupil enrollment. The past year has seen considerable interest, and acceptance, of the use of teacher aids, theme readers, and other paraprofessionals. However, even by making the most optimistic evaluation possible of such programs, there is every indication that education will be short in available staff, and at a salary disadvantage when competing with other professions for staff selection.

In order to fulfill the urgent needs in strengthening local school systems, the Office of Education plans to intensify its efforts in conduct-

ing studies on school board organization and practices; the external relationships existing between school and community; procedures and practices for attracting, developing, and holding competent staff personnel; and procedures involved in establishing soundly organized school districts.

HOUSING AND FACILITIES

It is generally recognized and often asserted that both teachers and pupils need proper tools if pupils are to be given an opportunity to develop their abilities—whether abstract, artistic, mechanical, or social—to a maximum level. The school plant, one of the tools essential to education, includes all physical facilities and equipment required for implementing an instructional program that will make this development possible. The significance of this concept is illustrated by the fact that, during the 10-year period from 1949–50 through 1958–59, the people of the United States approved the construction of approximately 565,000 public elementary and secondary classrooms for their children. Nevertheless, there was a reported shortage of 132,400 classrooms in the fall of 1959. In an effort to reduce this shortage, local school districts reported plans for the construction of 62,700 additional rooms during 1959–60.

Current trends and predictions indicate that, for the decade from 1959–60 through 1968–69, there will be a need for 607,600 classrooms and related facilities, of which 416,600 will be required during the first half of the decade (1959–60 through 1963–64). Assuming that the construction schedule for 1959–60 is met, the need would then be 544,900 classrooms for the remaining 9 years in the decade, of which 353,900 would be required for the first 4 years. If this schedule is met, it seems probable that, for the 5-year period from 1964–65 through 1968–69, a total of 191,000 additional classrooms will meet the anticipated requirements.

The amount of all capital-outlay expenditures for public education currently exceeds \$3 billion per year. Now at an all-time high, these expenditures will need to rise sharply during the next 10 years. Present capital-outlay expenditures, plus interest payments, account for nearly one-fourth of the total annual expenditure for public education. Other school plant services account for about 10 percent of the total annual expenditure—3 percent for maintenance and 7 percent for school plant operation.

The size of current annual expenditures for public education plus the fact that about one-fourth of the country's population spend their working days in schools, either as pupils or as employees, make public education the Nation's largest enterprise. Those who are responsible for planning, constructing, equipping, and operating our schools must have information, equated to dollars-and-cents costs, that will enable

them to make wise decisions concerning the health, safety, intellectual development, and physical welfare of pupils as well as others who use school facilities.

The Office of Education has a responsibility at the national level for collecting and disseminating accurate information on all phases and aspects of the school facilities program. Traditionally, it has provided this information through consultative services and through published reports to State and local school officials and other organized regional groups. These services should be expanded and continued, but the total effort should not stop here.

Recognizing the importance of research and experimentation relating to school sites, buildings, and equipment, the Office of Education recently initiated a project which could make it the center of information on research and related material on school facilities. Beginning on a small scale, the Office has undertaken, among other things, to collect and disseminate information regarding (1) existing research and related materials, (2) topics which represent problem areas in this field, (3) sources of information about such research, and (4) organizations which are or may be engaged in research or studies in this field.

A number of recent technological studies and experiments may influence decisions regarding school facilities. The adoption of a standard module for school construction, for example, could cut school construction costs and at the same time permit greater flexibility by allowing a building to be put together in any number of different and appropriate architectural arrangements. Coordination of the development of new construction materials and experiments with new construction techniques may reduce both the construction cost and the amount of time required for construction. Cost studies of various types of heating, ventilating, and cooling systems may influence design patterns, improve health conditions, and remove certain safety hazards. Results of studies on the physical characteristics of children have already brought about improvements in design, fabrication, and flexibility of school furniture and equipment. Data produced by studies on the interrelationship of light and color may produce significant changes for the improvement of visual conditions in classrooms.

There are other factors and emerging concepts which influence the planning of school facilities. The concept that gifted children require special learning experience has definite implications for both space arrangement and types of equipment. A wider use of special provisions for children with mental, emotional, and physical handicaps creates a need for special equipment and diversified types and arrangements of space. Expanded school offerings have become important

factors in planning school facilities. The enrichment of science, mathematics, and language programs under the provisions of the National Defense Education Act has stimulated interest in the design of instructional rooms and in the quantity and types of instructional equipment used for these subject areas. Experiments with reading groups indicate that a revision in room sizes is needed. Expansion of the educational program to include summer sessions, extracurricular seminars, before- and after-school sessions, and Saturday classes must be considered when new facilities are planned.

Newer instructional methods may also influence school plant needs. Special space arrangements are required for the satisfactory use of mechanical and electronic teaching aids. Large-group instruction, now deemed feasible for some subject areas, requires more space than the conventional type class. Facilities for closed-circuit television, a recent innovation in instructional method, must be planned with special care.

Another trend which influences school facility planning is the increasing use of school facilities by community groups. In this instance, decisions must be made with respect to frequency of use, group sizes to be served, and types of equipment which will be required by these groups.

In addition to providing leadership and consultative services in the areas of long-range planning, functional planning, school plant administration, building technology, and school equipment, the Office of Education provides similar services in the area of property management. With an estimated current investment of \$30 billion in public school property—sites, buildings, and equipment—increasing emphasis is being given to its management. Adequate training, supervision, and work standards for maintenance personnel is now considered essential to a properly functioning educational program. The services performed by them can prevent undue depreciation of school property; protect it against misuse, vandalism, and other damaging activities; eliminate numerous fire hazards and prevent others from developing; contribute to the health and safety of pupils and school employees; and create an environment that is conducive to educational efficiency.

III. Higher Education in the United States

Higher education in the United States began with the establishment in the American Colonies, primarily under religious auspices, of nine colleges patterned after the British colleges of Oxford and Cambridge Universities, but without university organization relating the colleges to each other. In all, 182 permanent colleges were founded in the United States before the Civil War. The 1959-60 *Education Direc-*

tory (*Part 3: Higher Education*) lists 2,011 institutions of higher education.

ANALYSIS OF INSTITUTIONS

Several factors have combined to make education beyond the high school in the United States a veritable patch-work quilt of institutions differing widely in size, in quality, and in kind. First, the educational pyramid tapers very slowly, as a direct result of the Nation's commitment to the ideal that every American boy and girl shall be not only permitted but encouraged to develop individual capacities to the fullest. Of each 1,000 pupils who entered the fifth grade in the fall of 1950, 885 entered high school (9th grade) in the fall of 1954; 584 graduated from high school in the spring of 1958; and 308 (or more than half those completing high school) entered college during the academic year 1958-59.

The second factor in the diversity of the Nation's institutions of higher education is their disparate origins—most were initiated under various private or religious auspices and still reflect a correspondingly varied assortment of objectives, methods, and policies.

A third factor in institutional diversity is the fact that the tax-supported institutions, which accommodate 59 percent of the students, are themselves supported and controlled by different agencies and groups. The 50 States, and in many cases the counties within these, the local school districts, and even individual municipalities have their own colleges for which they or their constituted officials select boards of control.

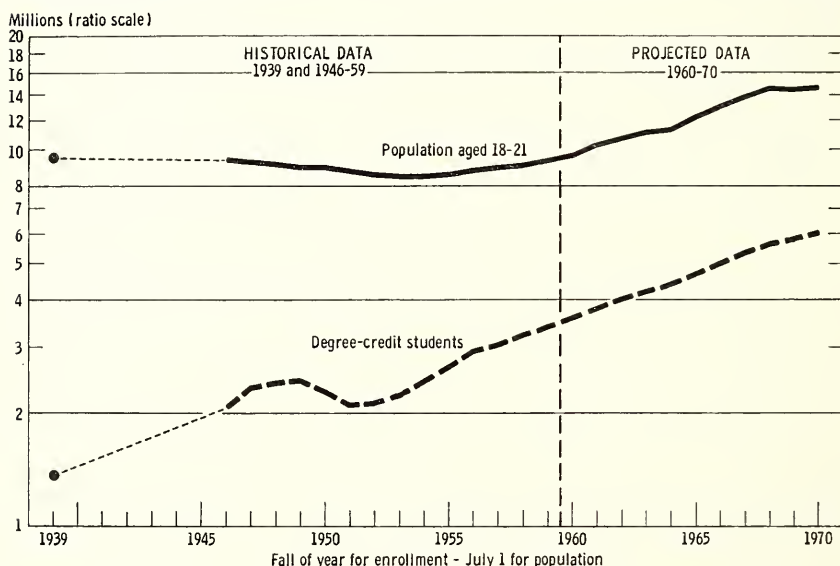
Of the 2,011 institutions of higher education listed in the *Directory*, 1,313 operate under private or denominational control, and 686 under State, county, district, or municipal control. Twelve are under the control of the Federal Government.

Enrollments of degree-credit students in 1,952 of the 2,011 institutions totaled 3,402,297 in the fall of 1959, a 4.4-percent increase over the preceding year. In addition to the degree-credit students were an estimated 250,000 in college-level terminal-occupational curricula. Of the total degree-credit enrollment, 41.1 percent was in private or church-controlled institutions, and 58.9 percent in tax-supported institutions. More than 460,000 degrees were awarded by the Nation's institutions of higher education during 1958-59: 9,360 at the doctoral level, 69,497 at the second level (master's except first professional), and 385,151 at the bachelor's and first-professional degree level.

For the Nation's colleges and universities the 1959-60 academic year was marked by an awareness of the broadening dimensions of impending problems, and a deepening sense of urgency regarding them. In large measure this was due to anticipation of the effects of the tidal wave of enrollments which has moved slowly through the elementary schools during the last decade and has now en-

gulfed the high schools as well. Every area of planning for higher education—organization, facilities, staffing, curriculum, finances—was dominated during 1960 by the sober realization that there remained little more time in which to prepare for the rise in enrollments which has just begun to make itself felt in the colleges. Enrollments will probably achieve maximum rate of rise about 1965, but will probably not reach their crest before 1968 or even later. Chart 1 shows for comparison, the total degree-credit enrollments of the Nation's colleges and the population aged 18-21 years, as recorded for 1939 and 1946-59, and as projected for 1960-70.

Chart 1.—TOTAL DEGREE-CREDIT ENROLLMENT IN RELATION TO POPULATION AGED 18-21: CONTIGUOUS UNITED STATES, FALL 1939 AND FALL 1946 THROUGH FALL 1959, WITH PROJECTIONS TO FALL 1970



Source: U.S. Department of Health, Education, and Welfare; Office of Education. *Opening Fall Enrollment in Higher Education, 1959: Analytic Report.*

In the fall of 1959 the Nation's 512 2-year colleges enrolled a total of 411,495 degree-credit students, a 6.5 percent increase over the preceding year, and accommodated in addition nearly 500,000 students in organized occupational curricula, adult education, extension and other special categories. Not included in these junior college totals are the enrollments of approximately one hundred separately organized 2-year units of university systems, which should be considered in any assessment of the junior college movement as a whole.

The most dramatic development in the 2-year college movement in the United States continues to be the rapid increase in the number of public junior colleges, particularly in the eastern part of the country. Florida, Maryland, New York, and Virginia are moving ahead

rapidly in organizing new 2-year colleges. Evidence of an awakened interest in this type of institution is also seen in New Jersey, Rhode Island, and Massachusetts. Massachusetts established its first State supported junior college in 1960, and Rhode Island enacted legislation to launch a system of 2-year colleges beginning in 1962. There is thus considerable evidence that the movement toward establishment of 2-year colleges in communities anticipating large increases in student population, as was recommended by the President's Committee on Education Beyond the High School in 1957, will be a significant factor in the Nation's efforts to accommodate increasing enrollments in higher education.

During 1960 the Office moved rapidly to sketch in bold outlines the crisis that will confront the Nation's colleges and universities in the middle and late 60's. In 1959 it had published the first of five parts of the comprehensive national survey of higher education facilities, *Part 1: Cost and Financing of College and University Building, 1951-1955*. In 1960 it completed *Part 2: Planning for College and University Physical Expansion*, and proceeded with *Part 3: Inventory of College and University Physical Facilities*. Utilizing both the completed and ongoing portions of this survey, the Office projected during 1960 a realistic and challenging estimate of the physical plant needs for the decade just beginning, as follows:

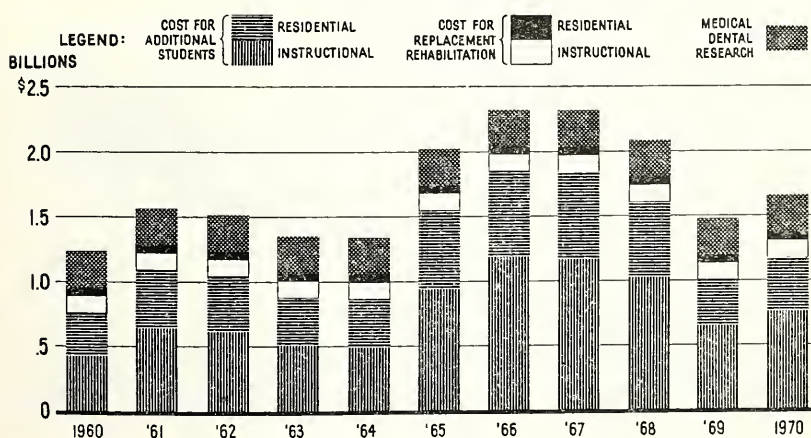
(1) \$2.1 billion for replacement and rehabilitation of buildings which are now, or will become during the decade, unsatisfactory, unsafe, or obsolete;

(2) \$13.7 billion for expansion of facilities to accommodate increased enrollments; and

(3) \$3.3 billion for increased and improved facilities for research and professional training.

The total facilities requirements, as projected year by year for the next decade, are shown in chart 2.

Chart 2.—ANNUAL NEED FOR PHYSICAL PLANT EXPENDITURES FOR HIGHER EDUCATION, BY FUNCTION, 1960-70



On the basis of its survey of institutional plans for construction of new facilities (and rehabilitation of those in existence), the Office compared the projected facilities needs and the projected institutional expenditures for 1960-70, year by year, as shown in chart 3. In chart 4 the cumulative projected expenditures are compared with cumulative total need, showing that by 1965 a cumulative gap of \$2.9 billion, and by 1970 a gap of \$5.2 billion, will have widened between expenditures for facilities and actual need, unless ways are found to increase expenditures beyond present institutional plans.

Identified as far more serious than the need of \$19 billion in ten years for facilities is the anticipated necessary increase of annual expenditures for current operation of institutions of higher education, from \$5 billion in 1960 to at least \$12½ billion in 1970. For the bene-

Chart 3.—ANNUAL NEED FOR PHYSICAL PLANT EXPENDITURES COMPARED WITH PROJECTED INSTITUTIONAL EXPENDITURES, 1960-70

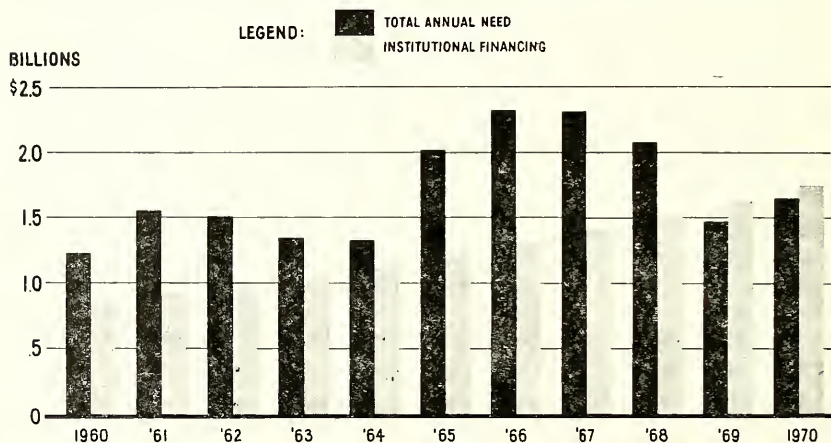
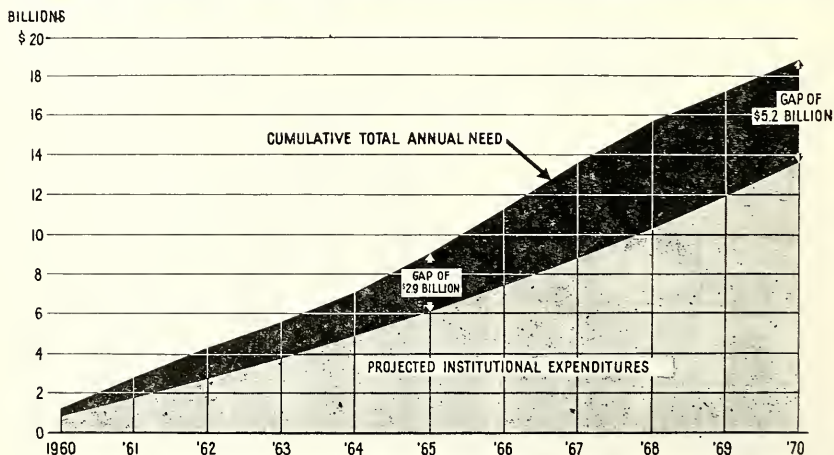


Chart 4.—CUMULATIVE NEED FOR PHYSICAL PLANT, HIGHER EDUCATION, 1960-70



fit of those who will have to deal with this problem at institutional, State, and national levels, the Office published in 1960 detailed analyses of institutional income and expenses for current operations, in its *Biennial Survey of Education*, and in other reports.

Timing its efforts to coincide with a significant upsurge in higher education planning at State, regional and institutional levels, the Office accelerated and expanded its services to those engaged in planning activities. Materials published in this effort included the annual *Review of State Legislation Relating to Higher Education*, the survey and analysis of *State Boards Responsible for Higher Education*, and the annual compilation, *Higher Education Planning and Management Data*. The Office assisted in the development of coordinating mechanisms within both public and private agencies for higher education, prepared for publication a report on *Criteria for the Establishment of Two-Year Colleges*, and provided extensive consultive services to institutions, boards of control, and State and other higher education officials.

The Office's goal in all this effort was to promote the quality and efficiency of higher education in general through the establishment of patterns for collective action within the bounds of freedom and flexibility. In conducting surveys such as *Higher Education in the Tidewater Area of Virginia* (completed in 1960), and *Higher Education in South Dakota* (in progress during 1960), the Office has provided significant service in interpreting, to those responsible for higher education planning, the needs and potentialities of institutions and areas. In particular, the Office has found itself in a position to ease the stress between institutional and organizational leaders and the representatives of public agencies in matters affecting budget and program planning.

STAFFING AND UPGRADING OF PERSONNEL

Having experienced increasing difficulty in the recruitment of professional staff, college and university administrators became aware during 1960 that the staffing of the Nation's colleges will become at least as serious a problem as the provision of facilities in the decade just begun. The Office's most recent report on *Faculty and Other Professional Staff in Institutions of Higher Education* indicates that in 1957-58 the Nation's institutions of higher education employed approximately 335,000 professional staff members in teaching (of degree-credit courses), administration, and research, full-time and part-time—the total constituting the equivalent of approximately 250,000 full-time professional staff members. From the report and existing trends, plus the enrollments projected for the decade, it is anticipated that full-time equivalent professional staff will rise from

approximately 280,000 in 1960 to 400,000 in 1970. When to the yearly increments required by increasing enrollment are added the numbers necessary to replace those lost by death, retirement, or change of profession, it is estimated that during the decade it will be necessary to employ about 336,000 new professional staff members for the Nation's colleges.

The qualitative aspects of this need for new professional staff members are as serious as its magnitude. Assuming that half the yearly supply of doctorates take positions in higher education (at the present rate of production of 9,360 per year), only about 46,800 of the 336,000 new professional staff members, or 13.9 percent, will have doctor's degrees at the time they enter the profession. The extent to which doctoral production must be increased in order to maintain even the present quality of entering staff can be judged by comparing the figure of 13.9 percent with corresponding ones of 31.4 percent (with doctor's degrees) for entering teachers in 1953-54, 26.7 percent for 1955-56, and 23.8 percent for 1958-59.

In the brief period of time since the conclusion of World War II, the Nation's universities have become a major research enterprise. In 1957-58 approximately 30,000, or about 13 percent, of all full-time-equivalent professional staff in the Nation's colleges and universities were engaged full time in the pursuit of organized (or separately budgeted) research; by 1959-60, the estimated full-time-equivalent had advanced to approximately 40,000, or about 15 percent of the total. The projection of total professional staff to 1970 given above assumes that the full-time-equivalent total of personnel engaged in research will increase from 40,000 in 1959-60 to 80,000 in 1970. Annual expenditures for organized research in colleges and universities are now close to the \$1 billion mark.

During fiscal 1960 the Office also analyzed and interpreted the problems relating to staffing the Nation's colleges and began the difficult task of establishing guidelines and goals in the production of needed members of new professional staff. These services will be especially valuable to those responsible for planning expansion of graduate programs, the administration of financial aid to graduate students, and the expansion and maintenance of professional staff for undergraduate programs. In addition the Office reported extensively on the slow rise of faculty and staff salaries in the Nation's institutions, calling attention to the fact that unless the salaries were increased more rapidly than those in other occupations (to offset a trend in the reverse direction over several decades), the problem of recruiting higher education staff from among the persons who become suitably qualified in the next decade will be increasingly difficult. From the 1930's to 1956-57, the pay, in stable dollars, of a full professor at Yale, Columbia, Johns Hopkins or Harvard decreased about

20 percent; in the same period the salary of an average member of the labor market rose 50 percent in stable dollars.³

Average salaries for full-time faculty members in all 4-year undergraduate colleges rose from \$6,160 in 1957-58 to \$6,810 in 1959-60, an increase of 10.6 percent in two years. This is far less than sufficient to produce doubled faculty salaries in the decade which began in 1957, as recommended by the President's Committee on Education Beyond the High School. Average salaries in private institutions (\$6,510 for 1959-60), which are lower than in public institutions (\$7,040), showed the larger increase, 14.2 percent in two years, compared with 8.8 percent in public institutions.

MANPOWER—GRADUATE AND PROFESSIONAL EDUCATION

The staff requirements of institutions of higher education in the present decade constitute one of several factors which will greatly increase the load on the Nation's graduate and professional schools. There can be no doubt about the imminent upsurge in college enrollments at the undergraduate level. The implications for graduate and professional education, though not quite so obvious, are equally certain when viewed in the light of the unfolding pattern of American manpower.

The Department of Labor has called attention to three factors which will alter the distribution and character of American manpower during the 1960's. First, a larger number of people will be seeking work in the labor market. Second, there will be a continuation of the trend toward white collar occupations. Third, there will be a rise in training and educational requirements of jobs of almost all kinds.⁴ During the 1960's the number of workers in the country will rise by about 14 million, an increase of nearly 20 percent. The number of professional, technical and kindred workers for whom special training is required, however, is expected to increase almost 60 percent between 1957 and 1970. But according to the projections there will be a slight *decline* in the total number of workers in the 35-44 age group, as a result of the low birth rates of the 1930's. For all these reasons it is urgent that every effort be made to increase the number of young people who equip themselves, academically and professionally, for the many types of jobs that will require more education and more training than ever before.⁵ Recognizing this need, the Office has prepared periodic reports on enrollments in organized occupational curriculums, on professional and graduate education and other subjects relating to the problem of trained manpower. Looking to the future, the Office in 1960 included in a reexamination of its program of educa-

³ *Financing Higher Education, 1960-70*, McGraw-Hill Book Company, 1959.

⁴ *Higher Education*, December 1959.

⁵ Newell Brown, "Manpower and Higher Education in the 60's," *Higher Education*, December 1959.

tional data-gathering a consideration for a comprehensive analysis of the oncoming manpower supply as it moves through the educational system. In connection with its NDEA Counseling and Guidance Institutes, the Office also began to develop a long range approach to the problem of guidance of American youth in a way consistent with the national pattern of opportunity and manpower needs. Likewise, in view of the anticipated load on the Nation's graduate and professional schools in the middle and late 1960's, the Office accelerated its study of graduate and professional programs, giving particular attention to their capacities and potential for expansion.

STUDENT ASSISTANCE

The rapid rise of tuition and fees in the Nation's colleges and universities during the last few years has become a matter of increasing concern—and of debate. Many educators and business leaders, citing the American ideal of equal opportunity and the evidence that higher education has become a social and economic necessity for able youth, hold that tuition, fees, and other costs should be kept low, particularly in the public colleges and universities. Others argue that costs of attending college have increased less rapidly than has disposable income over the last two decades, and that the families of students can afford to pay a substantial share of the cost of higher education. A few persons have gone so far as to say that the colleges should charge the student the full cost of his education—that he should borrow what his family and he cannot pay at the time.

A study of 196 representative institutions of higher education, 1939-58,⁶ shows that between 1939 and 1949 tuition and fees rose 44 percent in public institutions and 50 percent in private institutions. During 1949-58, these charges rose 60 percent in public and 75 percent in private institutions. The cost of living index rose 71 percent from 1939 to 1949, but only 21 percent from 1949 to 1958. In contrast, median family income in families with heads 35 to 54 years of age rose 132 percent from 1939 to 1949, and 64 percent from 1949 to 1957.

Despite disagreement on what proportion of the income of institutions of higher education should be derived from charges to the students, there seems to be almost universal agreement on the desirability of scholarships and other forms of aid to college students. The pattern of such aid has altered significantly in the last few years. The number of scholarships and fellowships awarded by individuals, foundations and corporations has increased. The institutions have greatly increased the number of their scholarship grants, both funded and unfunded. The most significant developments in the student assistance area, however, have been the Student Loan and Graduate Fellowship programs set up under the NDEA, and the rapid increase in State

⁶ Lanora Lewis, *College and University Business*, December 1959.

scholarship and loan guarantee programs. The preliminary report of a 1960 Office study of State programs of financial assistance for college and university students discloses 148 such programs in 44 States. Data obtained on 73, or fewer than half of these, list 42,791 students benefited by a total expenditure of nearly \$16 million.

IV. Research and Experimentation in Education

THE SETTING OF RESEARCH IN EDUCATION

The complexities of modern-day life have led to the development of educational needs which the pioneers in this field could scarcely have anticipated. Problems associated with the increase in population, the expanding amount of knowledge, and the movement of hitherto unknown nations into world prominence, all combine to make the tasks of today's educators the most challenging in world history. If education is to face the challenge, master the difficulties, and assume the role of leadership, the increased performance and utilization of research and experimentation is essential.

Educators have long sought for better ways to use existing knowledge. They have also sought new knowledge in subject matter fields and in the realm of pedagogy itself. Yet, not until recent decades has the field of research in education begun to approach the stature which it must attain. During those years, research in education has moved from man's attempt to solve his problems by merely rearranging old knowledge into new thought patterns, to the intensive description, systematic analysis, and experimentation which results in strengthening the substantive areas of knowledge and improving the processes of instruction, organization, guidance, and administration in our schools.

Measured in terms of employment, annual expenditures, rate of expansion, capital facilities, and clientele, education is one of the Nation's largest "growth industries." Many successful American industries spend from 3 percent to as much as 9 percent of their sales dollar in research and development. Nevertheless, despite the expansion and growth potential of education, it has been one of the slowest "industries" to profit by research, experimentation, and development, especially when a change involved abandoning of old methods, old processes, and old products to which people had become attached.

SUPPORT OF RESEARCH AND EXPERIMENTATION IN EDUCATION

On the other hand, it is encouraging to see that increased expenditures for research in education are being used by many sources as a tool for improving education. Private philanthropic foundations, voluntary health and welfare agencies, academies of science, scientific and professional agencies, local and national research institutes, private business and industry, and the Federal Government are pro-

viding an ever-increasing flow of funds, varying from a few thousand to millions of dollars, for educational research and experimentation. Some organizations provide support for research on basic issues only, others support only the applications of research, and still others support programs between these two extremes. Some agencies support research in any field of education, while others limit their support to chosen areas.

During the last decade Federal contributions to research in educational institutions have been increasing rapidly. During the fiscal year of 1951, Federal contributions for research in all educational institutions totalled \$64 million. While the exact figures are not yet available for the fiscal year covered by this report, the figure for fiscal year 1959 was \$223 million. The size of the increase in this last decade is certainly a strong indication of the growing concern for and support of research in educational institutions. However, providing funds for the support of research in educational institutions is not necessarily the same as providing funds for research in education. An important way to improve education is through the expenditure of funds for research in education as a field of study itself. The Office of Education is now engaged in supporting this type of activity. Certain phases of research in education are being furthered by the staff specialists who conduct various types of status and information studies. However, research activities administered but not performed by the Office of Education are supported through the National Defense Education Act of 1958, and the Cooperative Research Program, authorized by Congress in 1954.

Under the provisions of the National Defense Education Act of 1958, a number of educational research programs have been carried on during the past 2 years. Under title VI, the Office of Education approved 115 projects involving research, experimentation, development of specialized instructional materials, and studies and surveys relating to the improvement of modern foreign language teaching. One hundred twenty-three contracts were negotiated in support of these projects. During the first 2 years of the act, a total of \$6,455,086 was designated for research and studies contracts. For fiscal years 1961 and 1962, continuation costs for some of these contracts total \$2,035,355. Title VI authorizes a contract program only, with no provision for grants-in-aid.

In the development of this research program the Office of Education sought the advice and counsel of more than 250 leading scholars and specialists. Additional individuals and groups have worked under contract to carry out a broad range of studies and surveys such as evaluation of language institutes, inventory of resources and practices at language and area centers, development of archives dealing

with all the languages of the world, and collection of statistics on the status and trends of language study.

Entire new experimental courses of study are being developed for the secondary schools. Covering 6-year sequences and oriented to the audiolingual approach, the first-year materials in Spanish, French, German, Russian, and Italian are receiving field trials in more than 100 school field centers in 1960-61. More than a dozen colleges are under contract to experiment with new methods and programs for training more proficient future language teachers. Other research deals with the use of special equipment and devices such as films, filmstrips, language laboratories, and teaching machines.

The ability of American education to teach effectively many of the so-called neglected but significant languages of the world depends upon the availability of adequate instructional materials. To fill this need, a vast materials-development program has been initiated in 78 languages not commonly taught in the United States, from major world languages such as Hindi, Arabic, and Chinese to lesser but strategic tongues such as Swahili, Tibetan, and Thai. This program will go a long way toward filling the present gaps in instructional manuals, grammars, dictionaries, readers, and other teaching materials.

Under title VII of the NDEA the Office of Education is assisting and fostering through grants or contracts, research and experimentation in the uses of new educational media such as motion pictures, radio, and television; and is disseminating information, directly or through contracts, concerning the educational uses of these media. During fiscal years 1959 and 1960 the Advisory Committee on New Educational Media approved 116 project proposals for grants totaling \$7.5 million to bring the projects to completion.

Research projects funded under title VII are being carried on primarily in colleges and universities. The research relates to every instructional level from kindergarten to university, and concerns all of the broad content areas of learning. These projects reflect especially the emerging interest in the possibilities of television for large-group instruction and of teaching machines for individualized learning. Over half of the grants awarded to date focus upon these two methods of instruction.

The Cooperative Research Program of the Office of Education was developed with the purpose of seeking new knowledge and new applications for existing knowledge in the field of education. Therefore, no limits have been established on the nature or topic of the studies which can be supported under this program. Rather than establishing rigidly limiting categories under which all research proposals must be subsumed, the Cooperative Research Program receives all proposals

which relate to the field of education, and evaluates them for approval on the basis of their significance to education, the quality of research design, the quality and promise of the staff and facilities at the institution proposing the study, and the economic efficiency of the proposed research. From the time the program began operation on July 1, 1956, through June 30, 1960, the Research Advisory Committee of this program has recommended a total of 373 projects out of a total of 1,091 received. For these 373 approved projects, the total estimated Federal obligations, including those contracts for which negotiation was yet pending at the close of fiscal 1960, will reach \$15.8 million. Again, the success of this program in encouraging colleges, universities, and State departments of education to increase the scope of their research activities indicates a realization that research is the key to tomorrow's growth, that the future of education depends on learning new facts about education and better ways to utilize the knowledge we already possess.

THE POTENTIAL OF RESEARCH IN EDUCATION

Research in education as a key to tomorrow can be demonstrated in many ways. However, one of the most graphic methods is a rather simple statement of questions which now concern educators, and for which research is now seeking the answers. An analysis of the 46 research proposals recommended by the Cooperative Research Program's Advisory Committee in May 1960 reveals some of the questions for which answers are currently being sought. Illustrative areas of study and questions follow:

Creativity and Giftedness:

How can the identification of gifted students be improved?

Education of the Handicapped Child:

Can the comprehension level and knowledge of blind children be increased through the use of recordings to supplement their Braille reading? How should this material be presented so as to achieve maximum learning?

Elementary Education:

To what extent are pupils in the primary grades capable of learning the basic abstract mathematical concepts?

Vocational Education:

How are talent and giftedness being identified among students in vocational schools?

Higher Education:

How do the academic and student subcultures on a campus—for example, fraternities, academic clubs, dormitories—influence pupil achievement in college?

School Administration:

Can persons who have potential abilities to serve effectively as public school administrators be identified systematically?

Guidance and Counseling:

What are the causes of indecision in career decision-making and how can they be alleviated?

School Finance:

What are the relationships and the implications of the relationships between tax payments and benefits received in school districts?

International Education:

Can, and is, education being used in other countries to contribute to the achievement of national development goals?

These are some of the key questions which should be answered if educational programs and emphases are to be wisely planned, and if a satisfactory measure of success in our educational efforts is to be realized. Yet even if all of these questions are answered through the research and experimentation now in progress, we will have investigated only a few of many problems which continue to face our educational leaders and the citizens whose future depends on education.

The United States of America has long been recognized as a leader in the field of education as well as other fields of human activity. Today, that leadership is being challenged. We must no longer procrastinate in developing educational programs which will assure the continuation of our leadership. In developing these programs, research and experimentation must light the way to the progress that is necessary.

V. Educational Statistics and Information

For many years, various groups have sought to identify the types of educational information needed by government agencies at the national, State, and local levels; by the general public; and by the educational community. The U.S. Commissioner of Education has from time to time appointed advisory groups of national leaders to examine the Office's program of statistics and other information on education. The most recent of these groups, the Advisory Committee of Users of Educational Statistics, which has met periodically for the last 2 years to review the program of the Office, completed its final report in May of 1960. Groups of professional statisticians also have examined the procedures and program of the Office in this area several times in the last few years.

There is general agreement among all qualified individuals who have reviewed the Office's informational program that several major shortcomings currently exist: (1) lack of information on many questions bearing on national educational policy, (2) limited dependability and compatibility of present educational data from different sources, (3) lack of currency in the information available, (4) the high unit cost of available items of national information, and (5) incomplete dissemination of existing knowledge.

For some time the Office of Education has been actively engaged in effecting improvements in its statistical and other informational

services. Through the joint efforts of its management staff, subject matter specialists, and statistical personnel, a new procedure for the unification of survey planning has been initiated. This coordinated planning should result in earlier identification of gaps in knowledge, in elimination of overlap in projects undertaken, in a more effective schedule of operations, and in the improvement of statistical standards.

Important progress has been made in several areas within the last year. First, a study of the feasibility of use by the Office of different and more speedy types of statistical processing equipment has been completed. Investigation of the capabilities of recently developed electronic data processing equipment leads to the conclusion that the availability of such equipment has implications for the statistical program of the Office.

Second, under the authority of title X of the National Defense Education Act, the Office made steady progress during fiscal 1960 in developing cooperative relationships with State education agencies, and in improving statistical procedures in State education offices. Communication between the Office and the field is increasing and is becoming constantly more efficient. Progress was also made in the assembly of information on the use of Office-sponsored handbooks for setting up records in and making reports by local school districts, and in gathering information on the extent of use of machine processing procedures in local school districts and institutions of higher learning.

Standard terminology and definitions of items of educational information, contained in such Office of Education handbooks and manuals as the *Common Core of State Educational Information*, *Financial Accounting for Local and State School Systems*, and *Accounting for School Activity Funds*, were adopted by additional States as a result of this program. Many States began a systematic collection of basic items of information and indicated a desire to share such information with the Office. Preparation by the Office of a handbook on school personnel was underway during the year.

Although not under title X authority, similar cooperative activities are being carried on with higher education leaders in institutions and professional organizations. During the fiscal year, the Office took a more active leadership role in working with such institutions toward the development of a cooperative program of information about higher education.

Third, a procedure has been initiated whereby the Office's statistical program is being unified so as to prevent duplication of effort, overlapping of surveys, and obtaining the same items of information on more than one questionnaire.

An important accompanying activity was the development of item analyses of all Office periodic survey forms so that an authoritative

list of such items will be available for use by those who need to know what items are now being collected or have been collected in the past. The basic items needed to produce the derived items now obtained are also being ascertained so as to eliminate as far as possible the continued collection of derived items on the traditional type of questionnaire.

During the closing months of fiscal year 1960 a special Office-wide task force began the work of investigating the need for and the feasibility of developing a nationwide cooperative system of educational information. The work of this task force was supported by the services of consultants with expert knowledge of the educational system of the Nation and of recent technological advances in information storage and retrieval.

VI. *International Education*

INTERNATIONAL EDUCATION AND NATIONAL POLICY

There is a growing belief that the future of mankind may depend upon the outcome of a race between the accomplishments and goals of education in the free world and in the totalitarian states, and that if education for a free society does not win, the world may experience a disaster, the nature and extent of which are unknown. In one year, thirteen new nations in Africa, all critically lacking in trained manpower, are achieving independence. The success or failure of any one of these nations, or of similar emerging nations in Asia, or Latin America, may have repercussions involving the whole world.

The great need of the new nations is to develop their human resources to enable them to make use of their natural wealth, to establish stable and effective governments, and to take their place as equals in the community of nations. The development of human resources is a function of education. Thus education becomes a major instrument of international as well as national policy.

It is national policy among the developing nations, who comprise about half of humanity, to give education a top priority as a tool to develop among their people the capacity to survive and to build a good life. It is national policy for many of the older nations to offer educational assistance to the younger peoples. The Soviet Union is offering educational assistance as a manifestation of communist policy, and the free world is providing educational assistance as a demonstration of democratic principle. Thus the classroom in Africa, parts of Latin America, and of Asia, becomes a battleground of ideas. Here the nature of man's future may be determined by the contest between democratic and totalitarian concepts.

American education has today major responsibilities not known a few years ago. In a time of increasing scarcity of competent teachers,

we must share many of our best teachers with those whose need is greater. At a time when plans for the future education of American children tax anticipated fiscal and academic resources, we must also plan for the growing needs of our friends among the new nations. American education is no longer only American; as an instrument for the creation of a free world, American education is also international education. These developments have placed serious new responsibilities on the Office of Education.

There is a growing need for research in educational trends and developments abroad, both behind the curtains and in the free world. Each year the publications of the Office in the international area grow in quality and numbers. Since 1955 the Office has published more than 400 titles in comparative and international education.

But the largest international responsibility of the Office is to help Americans. The Office provides a variety of traditional services, by collecting and disseminating information on foreign education, by coordinating American educational representation with international organizations, and by analyzing foreign academic credentials. The Office also helps States and communities to broaden the foundations of American education by including in our schools information about the non-Western world. There is a keen and growing awareness that if Americans are to win in the educational race, and are to give the help needed by the new nations, Americans must be better, more intensively, and more broadly educated than ever before.

Americans have felt for some time that if they are to give maximum educational and technical assistance to the peoples of other countries and if they are to possess maximum understanding of these peoples, they must in greater numbers be familiar with the languages and cultural backgrounds of the countries in which they are serving either as official representatives of the United States or in a private capacity. The Language Development Program, authorized under title VI of the NDEA, came into being because of this need. Under this program, language proficiencies, teaching materials, and materials concerning historical and cultural backgrounds of the areas where the languages are used, are being developed in many languages not commonly taught in the United States. These languages range from major languages of the world to many of the lesser but strategic tongues. A fuller account of this program is given on pages 216-217.

INTERNATIONAL EDUCATIONAL EXCHANGE

The Office continued to conduct three major programs under agreements with the Office of Educational Exchange (formerly the International Educational Exchange Service) and the International Cooperation Administration of the Department of State: the Teacher Exchange Program, the Teacher Development Program, and the Technical Assistance Training Program in Education. The total number

of participants in the three major programs was 1,998. In addition, it provided extensive services to other visitors.

The Teacher Exchange Program.—The Teacher Exchange Program continued to expand, both in the number of participants and in the number of participating geographic areas. In 1959–60, the total number of participants was 619, distributed as follows: teacher interchanges, 150 pairs (300 teachers); other United States teachers assigned abroad, 133; other foreign teachers assigned in the United States, 31; seminars abroad for United States teachers and administrators, 155.

Because of the great interest in the seminar for school administrators, first initiated in 1959 when over 500 applications were received for 20 vacancies, two seminars were offered in 1960, each one accommodating 20 participants. One was held in France and Finland, the other in Norway and Italy. A new summer seminar was introduced in Brazil for teachers of the history and geography of the Americas and teachers of Portuguese.

The International Teacher Development Program.—Programs were conducted for 486 visiting educators from 65 countries. Of these, 310 participated in the regular six-month program. Seventy-nine attended two workshops arranged by the Office at the University of Puerto Rico. The remainder participated in summer programs or in individualized special projects.

The seminar in Puerto Rico, initiated in 1956 to provide study opportunities for Latin Americans who do not have an adequate knowledge of English to participate in the regular program in the United States, has become so popular that two seminars were offered for the first time. Participants in the second seminar were brought to the mainland for brief visits to New York, Philadelphia, and Washington.

The University phase of the regular six-month program was conducted at 11 institutions in 9 States. In January and February, these participants spent six weeks in intensive observation of school systems in 23 States. The combined number of visits to different communities by participants in the total program reached 1,040.

The Technical Assistance Training Program.—The number of participants in this program increased from 647 in 1958–59 to 893 in 1959–60. Especially noteworthy was the sharp increase in the Near East and Africa area, from 182 to 330. A substantial increase was also shown in the Far East, from 274 to 338. Countries with 50 or more participants included Indonesia, the Philippines, Thailand, Vietnam, The United Arab Republic, Iraq, and Turkey. A total of 50 countries were represented. Training was provided in approximately 60 different fields at almost 150 training centers. In addition, participants visited many other educational institutions and industries for brief periods.

Services to "Secondary" and "Nonprogram" Visitors.—Inherent in its position as the agency which represents education in the Federal Government, the Office has a responsibility to provide services in its field to visitors not assigned to the three budgeted programs described above. "Secondary" visitors are grantees under United States Government-sponsored exchange programs who are assigned to other agencies for training, but who come to the Office for brief periods; "nonprogram" visitors are those not on United States Government-sponsored programs who receive assistance from the Office in planning and conducting their educational activities in the United States. In 1959-60, the number of "secondary" and "nonprogram" visitors reached 448, an increase of 138 over the previous year. Services to these visitors were provided primarily by staff assigned full-time to other programs.

Exchange of Materials.—Materials pertaining to the international and comparative study of education are collected from many sources, and are placed on exhibition in the Educational Materials Laboratory at the U.S. Office of Education. They are intended for use by interested specialists and visitors. Office publications are also sent to other countries in accordance with official arrangements.

As Office specialists visit other countries they (1) bring back examples of educational materials used in schools abroad, official publications, programs of study, and university and school catalogs; and (2) arrange for direct exchange of informational and service publications with materials centers in other countries.

Credential Evaluation.—The Office of Education provides an advisory service for evaluating foreign academic credentials in terms of approximate equivalent levels of education in the United States. The purpose of this service is mainly to assist educational officials in American schools, colleges, universities, State education agencies, and other institutions and organizations in making credential evaluations. About 4,437 sets of foreign academic credentials were handled in fiscal 1960. Several types of publications helpful to persons dealing with such credentials are regularly developed by the Office.

AMERICAN SPECIALISTS ABROAD

The United States Government endeavors to share our vast human and professional resources with less fortunate peoples of the world. Education is an essential aspect of the technical assistance made available by the United States in most of the countries of South America, the Near East and Africa, the Middle East, and the Far East. This program and a similar but largely complementary technical assistance program of the United Nations require approximately 900 direct-hire educational technicians. There are also a number of foundations in the United States which conduct educational programs in foreign countries.

The Office of Education has responsibility for recruiting educational specialists for the technical assistance programs of the International Cooperation Administration and UNESCO. Approximately 100 technicians are recommended to ICA each year. Two or more candidates are recommended to UNESCO for each vacancy, since American educators must compete for selection with candidates from other countries.

INTERNATIONAL BUREAU OF EDUCATION

The admission of the United States into membership in the International Bureau of Education in July 1958 was the culmination of more than 20 years of United States cooperation with this oldest international educational organization. Following are a few pertinent facts concerning this organization.

History.—The International Bureau of Education whose headquarters are in Geneva was first established as a private organization in 1925. Its purpose was to serve as a center for the exchange of information on educational matters. After operating for 3 years on a private basis, it was reestablished in 1929 as an organization to which governments might belong directly or through their ministries of education.

Organization.—The IBE is governed by a council which meets annually in July, and by a smaller executive committee which meets in February. The President of the council is traditionally from France, and customarily the chairman of the Executive Committee is from Switzerland. The IBE Secretariat is dedicated to furthering IBE's purpose as a "centre of information and research in connection with all matters concerning education."

International Conference.—In 1932 and 1933, the Bureau invited nonmember governments to send observers to the Council's annual meeting. The interest thus aroused among educators in various parts of the world led to the establishment of an annual International Conference on Public Education. Between 50 and 60 countries prepare reports on the status of education in these countries, and on educational topics selected for discussion at the Conference. IBE and UNESCO have jointly sponsored the Conference since 1947.

Membership.—In 1960, 44 nations from all parts of the world were members of the IBE. The United States, which joined in July 1958, was the first English-speaking country to assume membership. Increasingly English is being used by participants in the Conference although simultaneous interpretation in French, Spanish, Russian, and English is regularly provided.

Other Activities.—IBE has served since its inception as a clearing house of information on education. It maintains a library of over 100,000 volumes on education, and possesses a unique collection of materials on school legislation, approximately 15,000 textbooks, and more than 14,000 volumes of children's literature from many parts of the world.

The Bureau has published more than 200 volumes. These publications include the *International Yearbook of Education* which contains a world survey of educational developments in 60 or more countries. A quarterly *Bulletin*, issued by the IBE alone, contains information on education in various parts of the world and reviews of recent educational publications.

Function of the Office of Education.—The Office of Education serves as secretariat for United States membership to the International Bureau of Education and assumes responsibility each year for preparing the yearly reports. It also designs an exhibit interpreting aspects of education in this country. In the

selection of delegates to attend the conference and in the coordination of United States efforts both in the United States and in Geneva, the Office provides services of its own specialists and enlists the cooperation of persons and agencies both within and outside government.

OFFICE RELATIONS WITH OTHER INTERNATIONAL ORGANIZATIONS

Increased activity and interest regarding international organizations marked the work of the Office during the year. Among the major efforts in this area were the following:

The Commissioner of Education attended the Seventh National Conference of the United States National Commission for UNESCO. He was also chairman of the United States delegation and a working member of a regional seminar on education held in Brisbane, Australia, by the South Pacific Commission.

The Office nominated United States educators to participate in a number of international meetings. Among these were a training course on Over-All Educational Planning, held by the Organization of American States in Bogota, Colombia, and a seminar on educational materials sponsored by the New Zealand Commission for UNESCO.

Major projects completed during fiscal 1960 included the United States Chapter for the UNESCO *World Survey of Education, Vol. III, Secondary and Vocational Education*; material for a report to UNESCO on international programs in Education, Science, and Culture; and a chapter on education for the United Nations Economic and Social Council to be included in the *Report of Experience in the Field of Social Development of Potential Assistance to Under-Developed Countries*.

COMPARATIVE EDUCATION

The perspective gained from examining the educational systems of other countries has always been important and is especially so at the present time as the United States marshals its resources to maintain its position of world leadership. Basic research in the field of comparative education has been carried on for many years by the Office of Education, and with increasing vigor in the last few years as additional funds and staff have been devoted to this purpose.

The Office in recent years has sent a growing number of people to various countries to study foreign educational systems, and has held conferences on various aspects of foreign education.

Comparative education, involving as it does comparisons between countries, must be conducted with a great deal of care. An educational system has meaning chiefly when considered within the cultural setting of a particular country. A comparative education study brings us a greater understanding of a foreign educational system and a glimpse of the essential character of the country itself. Most important of all, comparative education gives us insight into the workings of our own education system and the goals and aspirations of

our society. It opens our eyes to new possibilities, to the universality of certain basic educational problems, and to the close relationship of education and the forces at work in a society.

In the fiscal year 1960 the Office published major bulletins on teacher training in the Netherlands, Belgium, and Luxembourg, and on education in Brazil, Haiti, and the Soviet Zone of East Germany. There were, moreover, less comprehensive publications on education in 13 of the West European countries, 9 of the countries of the Near East and North Africa, and 2 countries of East Europe. Publications concerning various aspects of education in the Soviet Union and Communist China totaled 4. A general bibliography on education in most of the major countries of the world and more detailed bibliographies on education in Poland and the Soviet Union were also published.

Comparative education specialists were sent to Africa (9 countries), to the Far East (Japan, Taiwan, Hong Kong), and to Afghanistan and Iran for the purpose of gathering materials for future publications on education in these areas. In conjunction with the East-West contacts program, the Office of Education sponsored two visits to the Soviet Union by teams of American specialists, one for the teaching of foreign languages and the other to study educational research procedures used in the Soviet Union.

Two major conferences were sponsored by the Office during the year, one on education in England and the other on how American education is interpreted abroad. Comparative education specialists presented papers or served as panelists for meetings relating to foreign education sponsored by the Organization of Arab Students in the United States, the University of Florida's Annual Conference on the Caribbean, the Ibero-American Institute, a special subcommittee of the Organization of American States, the Institute of International Education, the National Association of Foreign Student Advisers, the American Association of Collegiate Registrars, and the Council on Evaluation of Foreign Student Credentials.

This year the Office also embarked on a project of systematic analysis of the educational system in Communist China. The previously mentioned trip to the Far East is part of this endeavor as is a forthcoming conference on Chinese Communist education (August 1960).

More detailed reports of activities for fiscal 1960 will be published separately for the following Federal programs administered by the U.S. Office of Education:

1. Financial Assistance for Areas Affected by Federal Activities, and School Construction in Areas Affected by Federal Activities
2. National Defense Education Act of 1958
3. Cooperative Research
4. Vocational Education (including Practical Nurse Training)

Table 1.—Enrollment in 50 States and District of Columbia, 1958–59 and 1959–60

[Office of Education estimates]

Grade level and type of school	1958–59	1959–60
<i>Kindergarten through grade 8:</i>		
Public school system (regular full-time).....	26,700,000	27,800,000
Nonpublic schools (regular full-time).....	5,000,000	5,400,000
Other schools ¹	180,000	180,000
Total, kindergarten through grade 8.....	31,880,000	33,380,000
<i>Grades 9 through 12:</i>		
Public school system (regular full-time).....	8,300,000	8,400,000
Nonpublic schools (regular full-time).....	1,000,000	1,100,000
Other schools ¹	90,000	90,000
Total, grades 9 through 12.....	9,390,000	9,590,000
<i>Kindergarten through grade 12:</i>		
Public school system (regular full-time).....	35,000,000	36,200,000
Nonpublic schools (regular full-time).....	6,000,000	6,500,000
Other schools ¹	270,000	270,000
Total, kindergarten through grade 12.....	41,270,000	42,970,000
<i>Higher education: Universities, colleges, professional schools, junior colleges, normal schools, and teachers colleges (degree-credit enrollment).....</i>	3,600,000	3,750,000
Total, elementary, secondary, and higher education.....	44,870,000	46,720,000

¹ Includes Federal schools for Indians, federally operated elementary-secondary schools on posts, model and practice schools in teacher training institutions, subcollegiate departments of colleges, and residential schools for exceptional children.

Table 2.—Supply and demand for elementary and secondary public and nonpublic school teachers: Continental United States (excluding Alaska), 1959–60

[Office of Education estimates]

Item	Elementary and secondary	Item	Elementary and secondary
<i>Supply</i>		<i>Demand</i>	
Total classroom teachers 1958–59.....	1,493,000	Total classroom teachers 1958–59.....	1,493,000
Less teachers with substandard credentials in public schools preceding year (Fall 1958).....	92,300	Total classroom teachers needed to meet enrollment increases in 1959–60.....	70,000
Qualified classroom teachers, preceding year.....	1,400,700	Total classroom teachers needed 1959–60.....	1,563,000
Less qualified teachers not returning to classroom service in 1959–60 ¹	152,700	Less qualified teachers from regular sources in classroom service, 1959–60.....	1,368,000
Qualified teachers of the preceding year returning to classroom service in 1959–60.....	1,248,000	Supply needed from other sources, 1959–60.....	195,000
Newly trained teachers entering classroom service ²	97,000	To be met by the re-entrance of former teachers into the profession, employment of teachers with substandard credentials, further overcrowding of classes, or curtailment of curriculum. (The corresponding figure for 1958–59, using the same dropout rate, is 182,000 ³).	
Teachers with substandard credentials becoming fully certificated ³	23,000		
Total qualified teachers from regular sources in classroom service, 1959–60.....	1,368,000		

¹ This figure for the number of qualified teachers not returning to classrooms is estimated on the basis of a 10.9 percent dropout rate. The total is approximately 50,000 higher than would be obtained by using the dropout rate of 7.5 percent employed in previous years. The advisability of using the new rate was indicated by the results of a survey conducted by the Office of Education.

² Derived from *The 1959 Teacher Supply and Demand Report*, National Education Association, Research Division. Computed as 83.3 percent of newly certificated inexperienced elementary teachers, and 67.8 percent for high school teachers.

³ One-quarter of the teachers with substandard credentials the preceding year, probably a generous estimate. No data available.

Table 3.—Grants and other financial assistance to States, Office of Education, for fiscal year 1960¹

States and outlying parts of the United States	Colleges for agriculture and the mechanic arts	Cooperative vocational education	Maintenance and operation of schools (Public Law 874)	School construction (Public Law 815)	Library services	Defense educational activities	MENTALLY RETARDED	Total
Total ²	5,051,500	39,140,434	3166,660,734	70,553,170	7,036,729	468,506,824	71,327	357,020,719
Alabama.....	100,541	1,063,459	4,134,169	1,178,556	207,576	1,924,249	-----	8,608,552
Alaska.....	71,283	85,978	4,937,070	2,273,264	46,657	78,720	-----	7,492,973
Arizona.....	77,477	204,863	3,910,640	3,360,417	72,485	139,691	-----	7,765,576
Arkansas.....	89,047	780,559	953,655	660,185	164,544	883,240	-----	3,531,233
California.....	175,599	2,083,982	26,023,090	12,396,011	239,322	1,869,372	2,033	42,789,412
Colorado.....	83,218	340,791	4,657,958	1,482,603	88,084	1,162,940	8,132	7,823,726
Connecticut.....	90,022	352,160	1,504,810	360,626	67,807	317,107	-----	2,692,535
Delaware.....	73,172	185,836	641,028	-----	48,391	109,059	-----	1,057,488
District of Columbia.....	-----	117,625	-----	-----	-----	230,289	-----	347,914
Florida.....	97,644	641,558	4,765,332	1,577,909	146,259	2,025,014	9,000	9,262,718
Georgia.....	104,360	1,094,212	4,650,651	1,364,942	223,578	820,728	-----	8,258,473
Hawaii.....	74,985	180,891	958,511	2,330,961	55,087	283,933	-----	3,884,370
Idaho.....	75,871	231,670	1,313,116	602,442	85,934	587,751	-----	2,896,786
Illinois.....	156,905	1,682,459	2,911,440	1,072,962	230,178	1,186,055	3,650	7,243,650
Indiana.....	109,244	963,233	862,161	1,438,320	-----	1,945,686	-----	5,318,646
Iowa.....	96,145	849,945	597,624	318,876	213,719	957,220	-----	3,033,531
Kansas.....	89,005	577,369	4,527,154	1,467,086	76,570	486,667	-----	7,223,854
Kentucky.....	99,374	1,065,690	1,113,299	205,963	221,203	1,054,541	-----	3,760,073
Louisiana.....	96,768	871,379	849,597	268,053	158,010	1,978,294	-----	4,222,102
Maine.....	79,115	231,634	1,400,588	367,808	61,052	322,391	2,450	2,465,039
Maryland.....	93,371	447,163	5,487,749	4,250,791	72,000	484,574	-----	10,835,350
Massachusetts.....	116,788	733,176	4,768,743	573,097	80,000	1,050,448	-----	7,322,254
Michigan.....	133,559	1,358,365	920,041	2,800,457	221,976	2,950,174	-----	8,384,574
Minnesota.....	99,750	935,247	413,809	246,113	172,203	1,678,280	2,166	5,477,570
Mississippi.....	91,735	961,493	1,348,521	684,269	193,061	2,068,017	-----	3,547,097
Missouri.....	109,448	1,084,681	2,050,041	931,751	198,893	1,641,219	-----	6,016,035
Montana.....	75,895	205,305	1,414,747	1,520,194	72,427	356,026	-----	3,644,596
Nebraska.....	83,222	441,703	1,557,295	485,835	108,519	512,256	-----	3,188,832
Nevada.....	71,596	179,589	1,226,881	124,835	88,141	84,499	-----	1,755,543
New Hampshire.....	75,319	173,264	1,034,802	-----	62,015	331,118	-----	1,676,519
New Jersey.....	118,233	767,848	3,079,175	963,315	97,403	1,756,621	5,500	6,788,096
New Mexico.....	76,794	235,333	4,036,614	4,429,888	73,042	663,376	-----	9,515,050
New York.....	217,933	2,482,102	3,416,560	1,586,921	249,152	4,761,827	3,050	12,717,547
North Carolina.....	110,518	1,500,204	2,011,507	703,359	302,331	3,223,393	1,633	7,852,948
North Dakota.....	76,180	288,687	336,233	845,927	42,146	422,095	9,800	2,021,072
Ohio.....	149,269	1,670,421	4,139,409	1,048,253	270,635	1,952,603	7,331	9,237,922
Oklahoma.....	92,278	736,475	6,615,389	3,066,253	99,815	1,345,086	-----	11,955,297
Oregon.....	85,175	339,785	851,685	266,000	89,514	848,936	-----	2,531,096
Pennsylvania.....	174,719	2,118,946	5,166,227	6,096	250,486	4,662,760	-----	12,379,235
Rhode Island.....	77,899	173,149	1,607,652	242,489	59,305	352,195	-----	2,512,690
South Carolina.....	91,117	732,732	2,890,143	525,502	127,918	567,630	2,650	4,937,694
South Dakota.....	76,511	287,001	1,698,838	958,222	82,462	268,828	-----	3,371,863
Tennessee.....	102,835	1,123,383	1,891,600	226,395	219,097	1,751,043	3,532	5,317,888
Texas.....	146,920	1,993,378	11,099,365	4,575,261	288,142	6,591,644	3,050	24,697,762
Utah.....	76,871	189,731	1,645,421	689,843	74,658	363,868	-----	3,040,395
Vermont.....	73,768	187,365	61,664	-----	63,385	218,507	-----	607,690
Virginia.....	103,104	987,317	13,007,273	4,003,652	211,253	2,607,408	-----	20,920,009
Washington.....	93,730	542,274	7,100,291	1,353,152	125,287	1,588,351	-----	10,803,087
West Virginia.....	90,005	628,224	115,532	-----	167,674	1,783,849	-----	2,790,286
Wisconsin.....	104,260	960,903	555,663	-----	190,468	2,328,611	7,350	4,147,257
Wyoming.....	72,898	170,986	660,542	198,800	50,291	303,293	-----	1,456,812
Guam.....	-----	64,069	711,730	519,500	15,495	65,058	-----	1,375,852
Puerto Rico.....	50,000	742,086	2,949,537	-----	220,000	509,802	-----	4,471,426
Virgin Islands.....	-----	42,730	75,439	-----	11,079	45,449	-----	174,697

¹ On a checks-issued basis. Does not necessarily agree with allotments or expenditures for a given year.² Inasmuch as the cents have been dropped from this table, a totaling of any column may or may not equal the total given for that column.³ Does not include payments made to Army, \$5,274,916.85; Navy, \$1,367,808.36; Air Force, \$1,482,562.09.⁴ Does not include amounts paid for loans and repayable advances or amounts paid to institutions under the National Defense Education Act, \$60,264,003.12.

Food and Drug Administration

THE FOOD and Drug Administration is in a period of transition, of growth from a small organization to one adequate to meet the heavy responsibilities recognized by a committee of distinguished citizens appointed in 1955 to appraise its operations. Laws enacted since then for better public protection have required substantial additional personnel and facilities.

A management consultant firm employed to review field operations, in a report issued early in 1960, recognized the growing demands being made upon FDA by the development of new products and manufacturing processes. It affirmed the recommendations for additional manpower made in 1955 by the Citizens Advisory Committee. The report recommended continuing the present system of FDA Districts, and increasing the number and staff of Resident Inspection Posts. It also called for additional measurements of workload and work accomplishment to ascertain how well the consumer is being protected.

Program planning is being conducted on a long-range basis. The groundwork is being laid for systematic reporting of statistical data that can be used for program formulation, direction, and evaluation. Plans for the coming year include securing more information concerning the firms whose operations are subject to the Food, Drug, and Cosmetic Act, and their products. Plans also call for increasing from 77 to 130 the number of carefully designed regulatory programs that will be given major emphasis.

Further planning is directed toward setting the goals of industry compliance to be sought from year to year in view of increased enforcement and educational facilities available. To accomplish this, and the other program-planning activities, advanced data-processing techniques must be employed.

Training programs during the year were largely devoted to the field force. Supervisory personnel have a serious responsibility in training

the new inspectors and chemists in the specialized techniques required for modern regulatory work. They must also keep experienced members of the staff informed on new developments in microanalysis, radiological instrumentation, and new chemical and bacteriological methods required in pesticide, food additive, and antibiotic detection and measurement.

A series of newsworthy events about FDA programs and activities during the year caused a flood of inquiries concerning the safety of the food supply, and of lipsticks. Each development is covered in more detail later in this report. The largest food sampling and testing program in FDA history began in November 1959 when shipments of cranberries were found to be contaminated by a weedkiller known to cause cancer in test animals. The public needed assurance that the testing and labeling practices put into effect for the entire crop would make it safe to serve the traditional holiday menu.

Not long afterwards, findings that a hormone (stilbestrol), to caponize poultry artificially, remained in some parts of the treated birds required negotiation and announcement of industry agreements to discontinue such treatments and withdraw treated birds from the market.

Concern likewise arose about the safety of lipsticks after proposals were published to ban most of the coal-tar colors that could be certified for use in them. This was necessary because the law, subsequently amended, prohibited certification of such colors as safe and suitable for use if they were harmful in any quantity, without regard to the concentration normally used.

Accurate press reports about these regulatory and administrative actions had to compete with sensational magazine articles and books charging that poisons are rampant in the Nation's food supply. Some consumers were alarmed, others became aware for the first time of the complex problems involved in the use of chemicals to produce, process, package, and transport food crops. Thousands of consumer inquiries came to the Division of Public Information, each letter calling for an answer as to FDA's views, and assurance that every possible precaution is being taken to protect public welfare.

A Consumer Inquiries Branch was established in the Division to answer such correspondence informatively and more efficiently. New publications were developed covering major topics of interest. A booklet, "What Consumers Should Know About Food Additives" and a circular, "Food Facts vs. Food Fallacies" were reprinted by industry organizations and widely distributed to libraries, schools, and other educational institutions.

Millions of growers and processors also received FDA educational material through organizations that could reach specific groups. Efforts were made particularly to reach growers who do not ship

their products directly in interstate commerce, but whose products eventually move interstate. Agricultural teachers received copies of "Grain Sanitation," "Clean Corn," "Milk and Cream—How to Comply with the Federal Food, Drug, and Cosmetic Act," and "Protecting Crops and Consumers," and requested thousands of copies for use in their classes. Milk and dairy associations distributed over a million copies of a message to farmers entitled "Keep Residues of Drugs and Pesticides Out of Milk." The first million was used so quickly that an immediate reorder was required. This was the first time FDA had ever attempted to place an official notice about the law into the hands of every member of such a large industry group.

The program of interpretive releases for the trade and public press has been expanded in order to explain the many new regulations and policy statements that have been issued, and to promote better public understanding of complex issues.

The Consumer Consultant program was reactivated by appointing a Consumer Programming Officer to plan and coordinate the activities of 20 consumer consultants located in the Districts. The function of the consultants is to provide planning personnel with information needed to appraise the effectiveness of consumer protection. The consultants also help to disseminate FDA information to consumer groups through talks and meetings and by radio and television appearances, to the end that informed public opinion will be the basis of recommendations for better protection.

The basic 1961 fiscal year appropriation is \$16.8 million, a \$3 million increase over that for 1960. In addition, \$100,000 was appropriated for preliminary planning of an animal research facility. A supplementary appropriation of \$1.2 million was enacted to implement new laws signed July 12, 1960—the Color Additive Amendments and the Hazardous Substances Labeling Act.

The 1961 appropriation provides for 2,199 positions in FDA, including 451 in programs resulting from legislation enacted after the Citizens Advisory Committee study was made in 1955. On the basis of a projected 15-percent annual increase from the 1956 total of 877, the Citizens Committee goal for 1961 is 1,763, or 15 positions more than the 1,748 actually provided for work covered by their recommendations, and not counting personnel provided for the new programs.

Seventy-five percent of the increase in basic funds is budgeted for improved field operations, including an increase in inspectors which will permit inspecting plants at a rate of once in 4½ years in comparison with about once in 5½ years in fiscal 1960. The 1961 budget provides funds for the continuation of a planned program of renovating FDA's District office facilities, on a 2-year schedule. Funds are requested for fixed equipment during the first year, and for special items of portable scientific and administrative equipment

during the second year. The 1961 budget provides funds to complete Los Angeles and Buffalo District offices begun in 1960, to begin the first-year renovation of Boston, Cincinnati, Kansas City, and Minneapolis Districts, and for the partial financing of first-year costs to renovate New York District. With a new building for Detroit opened a year ago, new quarters for Atlanta dedicated in June 1960, and the new Dallas District to be opened in January 1961, 10 of the 18 Districts will be modernly and efficiently housed by 1962.

Congress appropriated \$15.1 million for construction of an FDA headquarters in Washington. This will alleviate the acute shortage of laboratory and office space which the Citizens Advisory Committee had pointed to in 1955. The expansion program it recommended, and which won the support of the Administration, Congress, and the public at large, has now made headquarters space even more inadequate. The staff has been dispersed into scattered locations at the expense of efficiency. Existing antiquated facilities are not suitable for the advanced experimentation required today to keep up with the technological advances of the regulated industries. Therefore, the facilities planned, both in Washington and the field, are not luxuries, but are necessities to meet the demands of increasing responsibilities, numerical growth, and scientific progress.

An adequate animal research facility is imperative. Experimental animals have been required for decades in conducting drug bioassays for compliance with U.S. Pharmacopeia standards. By 1935, pharmacology had become so important to FDA evaluations of safety that a new Division was formed and staffed with experts. The 1938 Act, with its provisions for control of safety of new drugs before marketing, materially added to the responsibilities of this Division and required an increase in the number of experimental animals to be housed. Antibiotics certification tests further expanded the animal colony. The Pesticides Chemicals Amendment of 1954, and, more extensively, the Food Additives Amendment of 1958, made the housing problem for necessary research animals even more acute. Every effort is being exerted to provide better housing for the animals.

The 25-percent increase for headquarters operations will be utilized to improve basic and applied research on food additives and pesticides, to obtain the results of experience with new drugs after they are in widespread use, and to give increased attention to food standards. Funds are also provided for the study of radiological contamination of foods, drugs, and cosmetics. Specific problems that also will be studied will include bacterial contamination of frozen foods, the possibility of carcinogens finding their way into foods, and toxic properties of fatty acids, all of which are under intensive investigation by industry scientists.

Efforts to improve public understanding of regulatory programs and thereby promote voluntary compliance will also be stepped up under the provisions of the 1961 budget.

Food, Drug, and Cosmetic Act

ON THE FOOD FRONT

One of the major disasters of the year in its effect on interstate supplies of foods and drugs was the explosion in the downtown area of Rosenberg, Oreg., of a truck loaded with 2 tons of dynamite and 4½ tons of ammonium nitrate. Two grain elevators, a soft-drink bottling plant, some drugstores, and a drive-in ice cream establishment were among the establishments wrecked with glass particles contaminating the foods and drugs. FDA assisted State and local health and food officials in segregating contaminated lots, which were destroyed under the supervision of these officials.

The Montana earthquake in August caused great injury to vacationers but there were few food and drug establishments in the disaster area requiring attention.

Potential Health Hazards

Radiation and Civil Defense.—In August the President established the Radiation Health Council and designated the Secretary of Health, Education, and Welfare as its chairman. Under this program FDA has been given the responsibility for determining, establishing, and enforcing permissible levels of radioactivity in foods, drugs, and cosmetics; monitoring such products to determine levels of radioactivity; conducting research for identification and evaluation of radioactivity in foods, drugs, and cosmetics, and decontamination techniques for affected products, and for the training of Federal, State, and local food and drug officers and professional and technical employees of regulated industries in such methodology and techniques; approving radioactive drugs used in diagnosis and treatment; conducting regulatory work to combat "radioactive" quackery; and for disseminating information about these activities.

Twenty-six persons were assigned to the radiological program for this fiscal year 1960; it will be augmented in 1961 with a budgeted staff of 116. The 11 civil defense positions are financed by funds appropriated for the Office of Civil and Defense Mobilization.

During the year a number of reports were made of samples collected from various parts of the country and tested for total beta radiation, as a check on fallout contamination. This program covered about 6,000 samples of 50 different foods, including some imported articles. Although tabulations have not been completed, there appears to be a general decline in total radioactivity except for tea, alfalfa, and

spinach. Brewing of the tea and processing of the spinach significantly reduced the levels of radioactivity in those commodities as consumed.

With the cessation of large-scale nuclear weapons testing in October 1958 the shorter-lived isotopes from fallout apparently have decreased considerably and new methods to isolate individual isotopes must replace the "total beta" measurements which have been used for fallout comparisons.

Tests were begun for Strontium 90 in wheat, cabbage, and potatoes grown in 12 States and soybeans from one of them. Examination of individual samples showed levels within the limits recommended by the National Committee on Radiation Protection as permissible for lifetime exposure.

The FDA Civil Defense Training Program for Federal, State, and local food and drug officials, designed to help them safeguard the food and drug supplies of the Nation in case of enemy attack, was reactivated in 1960. Basic changes were made in the original course to conform to new developments in chemical, biological, and radiological weapons since 1957. More time was given to practical exercises and less to the more technical aspects of the course. The revised training courses held at 10 field Districts and in Washington, D.C., were attended by 337 people, including new FDA employees, State and local food and drug officials, and members of regulated industries. The remaining Districts will be covered in 1961. The course presented the effects of theoretical chemical, biological, and radiological attacks on food and drugs, procedures for testing exposed food and drugs, and the decontamination or destruction of contaminated food and drugs.

The Biological Warfare Research Program was limited to building an organization necessary to perform the research operations, and acquiring a thorough understanding of the problem. A Biological Warfare Research Branch has been created. The program being developed is designed to study the vulnerability of wholesale packages of foods and drugs to bacteriological agents introduced during overt or covert attacks, and to develop simple procedures that will be critically needed following any enemy attack for decontamination of affected products. It is hoped that this program may be expanded by similar studies of products in retail containers and by the determination of the longevity of potential agents in various foods held under usual storage conditions.

Food additives.—Regulations promulgated under the Food Additives Amendment to the Act are discussed under "Changes in the Law and Regulations." Some industry groups were at first surprised to learn that the term "food additives" covers much more than the mere deliberate addition of substances to foods in the process of manufac-

ture, where the manufacturer knows exactly what he is putting in, how much is involved, and whether or not its safety has been established.

Illustrations of such possibilities and problems include compounds formed by chemical reaction during the process of manufacture; residues of insecticides and cleaning materials used in food plants and processing equipment; compounds to prevent corrosion in boilers, which may be carried by steam into the food; substances which migrate to the food from packaging materials, printing ink, and mold inhibitors used on fruit containers; and drugs added to animal feeds either to treat disease or promote growth.

FDA staff members gave talks to industry associations throughout the year to promote better understanding of the specialized problems confronting them. In contrast to the food industry which had long experience in operating under the Food, Drug, and Cosmetic Act, many of these groups were facing Federal regulatory procedures for the first time, some with apprehension.

The use of stilbestrol for the artificial caponizing of poultry was authorized in 1947, after a 2-year study of new-drug applications showing that no significant residues of the drug would remain in the edible tissues of treated birds. Since it was known that this hormone could cause cancer in experimental animals, a policy statement was issued in May 1959 that under the Food Additives Amendment provisions, no further new-drug applications could be made effective for such substances and that all sanctions then in effect would be reviewed. An extensive reexamination of the use of stilbestrol in the raising of beef cattle, sheep, and poultry showed no detectable residues in meat from treated animals but small residues were found in the skins, livers, and kidneys of treated poultry.

Authorized manufacturers were requested to suspend production of stilbestrol for use in poultry immediately, and representatives of the poultry industry and the retail food industry were requested to arrange for the immediate discontinuance of the sale of treated birds to consumers. Their agreements to do so were announced on December 10, 1959. Approximately 1 percent of the poultry crop was involved. (See also "New Drugs.")

Consumers, too, need to know more about food additives. Writers of sensational articles and books are frightening many people with false conclusions about the safety of the food supply, as mentioned in the introductory chapter. FDA published a booklet in January entitled "What Consumers Should Know About Food Additives" to explain to the public that food additives are an integral part of the tremendous progress being made in modern food technology and that the new law establishes safeguards to prevent the use of new, untested substances.

The Food Additives Amendment became fully effective on March 6, 1960. Attention was given to food additives during 3,700 factory inspections, with referral to FDA headquarters of any findings requiring administrative or scientific review.

Pesticides.—The enforcement of the 1954 Pesticide Chemicals Amendment is one of FDA's major problems. Approximately 2 million growers are using several hundred million pounds of pesticides yearly in the production of our foods. Approximately 23 percent more field time was spent on this project than in the previous year in surveillance of pesticide practices of growers, the collection and examination of samples, educational work, and the development and improvement of analytical methods.

Sixty seizures totaling 1,377 tons were made during the year of raw agricultural commodities containing unpermitted pesticide chemicals or residues in excess of established tolerances, and processed foods having unpermitted pesticide chemical residues. In volume, the largest seizures involved 738 tons of apple pomace stored in farm silos. This pomace consists largely of the skin and extracted pulp of apples, the byproduct of the manufacture of vinegar, cider, apple-sauce, and other apple products. It contains a concentrate of pesticide residues much greater than the apples from which it is derived. FDA investigations showed that when cattle were fed apple pomace DDT appeared in the milk and meat, and a policy statement was issued that articles containing such residues were in violation of the Food, Drug, and Cosmetic Act. Most of the apple-processing plants arranged to have the pomace hauled to dumps but some of it found its way into the silos of dairy farmers. After the seizures were adjudicated, the pomace was taken from the silos, spread on the fields, and plowed under.

In its impact on the public as well as the industry, the action taken involving cranberries containing aminotriazole by far dominated all of the other enforcement work. Although the tonnage destroyed after seizure was approximately one fifth of that of the apple pomace, more than 3 million pounds of the 1957 crop, which had been held until the residue status was cleared, were in the process of being destroyed voluntarily when contamination was discovered in the 1959 crop going to market.

The use of aminotriazole as a weed killer on cranberry bogs began in the 1957 growing season before it was registered with the U.S. Department of Agriculture on a no-residue basis, with directions calling for use not later than 7 to 10 days *after* harvest. These directions were widely disseminated after the registration in January 1958, and a large volume of the 1957 crop known to have had application of the weed killer during the growing season was set aside in freezer storage pending an expected establishment of a residue tolerance. Petitions for

such a tolerance were withdrawn when evidence developed that aminotriazole caused thyroid tumors in experimental animals. When there were rumors that the chemical was being misused, FDA chemists began working to perfect methods to detect it in the cranberries. When the method was finally available in the fall of 1959, samples of cranberries were examined for aminotriazole and interstate shipments found contaminated were seized and the facts were announced to the public.

Because of the approaching holiday season, FDA launched into the most extensive sampling and testing program it had ever undertaken for a single commodity. Press, radio, and television kept the public informed of day-by-day progress on the clearance program—some papers even going into detail as to the procedures of the time-consuming tests and the elaborate equipment required. Agreement was reached with the industry on a plan for labeling cranberries tested and found free of aminotriazole so that the buying public could identify these cranberries and buy them with confidence.

In October 1959 it was announced at a milk industry meeting that FDA was starting to sample milk with a view to regulatory action on shipments containing residues of antibiotics and pesticides. This followed a 5-year period of FDA investigational surveys and an educational program in which agricultural and industry groups had participated. After this announcement schools were set up to teach the methods involved in detecting and measuring drug and pesticide residues. State and local officials attended 12 antibiotics and 13 pesticide methods schools, and there was also participation by key industry technologists who could train other industry control people in their use.

State and local agencies examined more than 50,000 samples for antibiotic residues, issued warnings when they were found, and in some cases refused to permit deliveries until the milk was found free of contamination. They were also active in tracing sources of contamination in the eight shipments of dairy products that were seized by Federal action because of pesticide residues. These consisted of six lots of evaporated milk, one of condensed milk, and one of butter.

Eight carloads (346 tons) of mercury-treated grain diverted from seed use to food channels were seized. Other pesticide residue seizures included celery to which Parathion was applied in many times the recommended amounts, Bibb lettuce, spinach, and dried beans. The lettuce was produced in greenhouses where it was protected from outdoor conditions and a fungicide (PCNB) which was registered on a "no-residue" basis was applied. The firm, when notified by FDA that the lettuce contained an unpermitted residue, persisted in shipping it and advised dealers not to hold it pending Government analysis. The Department of Agriculture then issued a notice that the labeling of

pesticides is approved only for normal outdoor use, and should not be followed for greenhouse growing unless specific directions appear on the label for such use.

Food poisoning.—Forty-five outbreaks of suspected food poisoning involving approximately 3,600 persons were investigated by FDA during the year. Insanitary handling or prolonged holding under inadequate refrigeration continued to be the underlying cause of a majority of the outbreaks.

In two outbreaks, foods in interstate commerce appeared to be involved, one of these was associated with a product in an apparently defective container. Investigation revealed that the remainder of the lot was satisfactory. Whipped oleomargarine held without refrigeration in retail stores was responsible for the illness of 36 persons. Investigation revealed the presence of enterotoxigenic *Staphylococci* in samples of the product. Lots involved were not of recent production and no outstanding lots were found on the market.

Botulinus in home-canned foods was responsible for 4 outbreaks involving 10 persons with 3 deaths.

To Keep Food Clean

Although first attention must be given to keeping potentially dangerous food from reaching consumers, 75 percent of the food seizures were based on filth and decomposition. A total of 6,898 tons were seized in 571 actions. Of these, 336 seizures involved merchandise that became unfit after interstate shipment.

As the result of FDA inspections disclosing merchandise that would be subject to seizure if shipped, owners voluntarily destroyed an additional 6,913 tons of unfit food in 1,133 actions. They also reported 251 plant improvements costing nearly 3 million dollars in structural changes, repairs, new equipment to contribute to sanitary operations, and hiring of new sanitarians. Many other firms are continuously improving their plants and operations without reporting details and costs to inspectors, or suggestions being required. In either case, such actions provide long-range consumer protection.

One of the largest voluntary recalls and destructions followed national press publicity given to seizure in Hawaii of a small lot of spaghetti in tomato sauce following a factory inspection indicating that the spaghetti used had been prepared and held under insanitary conditions permitting insect contamination. The home office in the East sent top management representatives to the California branch to correct the situation. The manager was relieved and the plant shut down for cleaning. About \$100,000 worth of the product was recalled from the market and destroyed, and approximately 120,000

pounds of spaghetti ingredients that had been held under insanitary conditions were converted to animal feed.

In general, warehouse conditions have improved as a result of constant pressure and legal actions. Inspections made at food-storage warehouses, including wholesale grocers, chainstore warehouses, cold-storage warehouses, and other establishments where food is stored for subsequent distribution, totaled 3,653, a slight increase over the 3,218 warehouse inspections made in 1959.

Seizures were made of 146 lots found contaminated with filth, 13 prosecution actions were filed, and 3 injunctions were requested to prevent the distribution of food that had become contaminated while held for sale. In two of these cases improper use of a toxic rodenticide was also a factor. In another case where injunction was under consideration the firm and the building owner made extensive repairs of the warehouse, destroyed rodent-contaminated and insect-infested merchandise, and thoroughly cleaned the premises, thus attaining the objectives of an injunction without formal action.

The largest warehouse seizure involved a million pounds of rodent-contaminated sugar in the spring of 1960. A few months earlier a relatively small portion of this large lot was found contaminated and seized but the owner did not take the necessary steps to keep rodents from defiling the remainder of the lot.

A warehouse owner fined \$3,000 for insanitary storage conditions resulting in the contamination of cereals and ready-mixes had been convicted on the same charges within a year. The Federal judge, at sentencing, said he would be fully justified in imposing a prison sen-

Table 1.—Actions on foods during the fiscal year 1960

Projects	Seizures	Criminal Prosecutions instituted	Injunction petitions
Total.....	757	61	10
Beverages and beverage materials.....	13	0	-----
Bakery, ready to eat cereal, and macaroni products.....	9	12	-----
Cereals and grain products:			
Human use.....	101	2	4
Animal use.....	7	2	-----
Chocolates, sugars, and related products.....	26	4	1
Dairy products:			
Butter and churning cream.....	19	5	-----
Cheese and other dairy products.....	12	0	-----
Eggs and egg products.....	21	4	1
Flavors, spices and condiments.....	16	3	-----
Fruits and fruit products.....	63	1	1
Meat products and poultry.....	9	0	-----
Nuts and nut products.....	91	4	-----
Oils, fats, and oleomargarine.....	7	1	-----
Seafood.....	65	2	1
Vegetables and vegetable products.....	102	8	1
Miscellaneous foods (mixed lots).....	5	0	-----
Warehouse foods.....	147	13	3
Food for special dietary uses ¹	38	0	-----
Food adjuncts.....	1	0	-----

¹ Includes vitamin products intended as food supplements.

tence, and warned the defendant that he must choose between keeping his warehouse clean or getting out of the food business.

During the educational campaign to keep pesticides and antibiotics out of the milk supply the message of clean milk and cream was continued. A trend from farm-separated to creamery-separated cream, with collections in bulk tank trucks is creating a problem for the milk station in identifying the farmers who are not following recommended practices of protecting milk from filth and decomposition. In deliveries in cans from individual farms the collecting stations could determine objectionable lots by sediment tests and reject them. Shrinkage in the volume of production, consolidation to larger manufacturers with better quality control concepts, and a marked switch from sour to sweet cream for butter making have resulted in a decrease in regulatory actions, from 18 seizures of filthy butter and churning cream in 1959 to 8 in 1960.

One firm that had continued the manufacture of sour cream butter was prosecuted for the shipment of adulterated cream and with its officers, was fined \$9,000, the heaviest fine of the year, and the heaviest meted out to a creamery in recent years. The firm has announced that it will discontinue manufacturing sour cream butter.

The clean grain program was continued through talks at meetings and discussions with many members of the trade, participation in grain association schools, distribution of sanitation leaflets, and inspections of elevators and bulk shipments. The program was furthered by inspectors of the Commodity Stabilization Service who followed up on FDA's reports of violative elevators storing CSS grain, and issued warnings that licenses would be suspended for elevators that did not protect the grain from rodents and insects. Their actions stimulated repairs and diversion of contaminated grain to feed use before it could contaminate incoming clean grain.

Four injunction petitions were forwarded to the Department of Justice to prevent the shipment for human consumption of adulterated wheat held under insanitary conditions. Seizures of bulk lots of grain contaminated by rodents were made in 27 actions involving 1,395 tons.

Continued sanitary improvement was noted in most processing plants, but one large candy factory was enjoined from shipping contaminated products from a factory heavily infested by insects and rodents. Two large lots of contaminated cocoa beans had been seized at this factory, and factory inspections in October, December, and January disclosed intensive infestation of the plant's equipment as well as in raw materials and finished chocolate products, despite previous warnings. The injunction restrained the firm from shipping approximately 300,000 pounds of products manufactured under these insanitary conditions.

Improved sanitary conditions were found in the crab-picking plants of the Chesapeake Bay area. A South Carolina crabmeat packer was fined \$500, given a 1-year suspended sentence, and placed on probation by a judge who commented that crabmeat, usually consumed without further cooking, should be produced under the very best conditions. Rodents, insects, and insanitary personal habits are intolerable, he added, and those who cannot produce crabmeat under the best of conditions should get out of the business.

The problem of diversion of incubator reject eggs to human food channels by an organized group of bootleg-type racketeers has been discussed in previous reports. In the Southeast, a permanent injunction was granted to prevent the interstate shipment of lots located last year, fines were levied against another firm and its operator, and additional seizures were made. At Nashville, three key individuals in the racket were sentenced to 4-month prison terms for shipping frozen candling rejects for food use. They had been involved in Federal jurisdictions elsewhere and had had their cases transferred to the Federal court at Nashville, expecting lighter penalties. A convicted principal in the East Coast diversion of rotten incubator reject eggs into foods, pleaded guilty to violating terms of a 5-year probationary sentence and was sentenced in November 1959 to 3 months in jail, for shipping reject eggs from Connecticut to New York for breaking out and packing in 30-pound cans to be frozen and distributed to New York and New Jersey food processors.

Fines were also imposed against operators in Florida and Texas. The ringleaders of this group apparently have diverted their activities to other enterprises, but such a profitable racket is difficult to suppress and others will continue to attempt it. For example, a new bootleg incubator reject enterprise was uncovered as a result of information received from Michigan authorities that some hatcheries were making shipments from that State.

Surveillance was established and a truckload of more than 600 cases was seized while in transit in northern Indiana. This type of enforcement requires extensive time, unusual hours, and coordinated efforts of Federal, State, and local officials.

Pocketbook Protection

The 1959 report described a nationwide check of the net weight of packaged foods and announced the initiation of a seizure program when significant shortages are encountered and attention to net contents practices of food packers as a part of each food-plant inspection. Products seized for short weight or volume during the fiscal year included popcorn, candy, spices, frozen strawberries, stuffed olives, nuts and nut products, cooking oil, canned peppers, tomato sauce, and soup mix.

Among the products seized for failure to comply with official standards were various "chocolate" items made with cocoa, and others low in chocolate, cocoa containing cocoa shell, enriched flour deficient in enrichment and failing to bear mandatory labeling information as to its vitamin and mineral properties, low-fat butter, cheese made from unpasteurized milk and not held the required 60 days, tuna failing to meet fill-of-container standards, canned peaches containing mixed pieces of irregular size, jams low in fruit content, margarine masquerading as butter and other margarine failing to bear mandatory labeling, canned beans with excessive fiber, and canned peas not labeled to show that they had been prepared from dried peas.

Another type of violation affecting the family food budget is failure of unstandardized items to meet the ingredient statements on their labels—through substitution of cheaper ingredients than the purchaser is led to expect. Seizures for such violations included coffee with dextrose and undeclared artificial flavoring, cream pies without the whipped cream they were declared to contain, fish fillets unlabeled as to species or packer, shrimp with broken pieces substituted for whole, whiting not fully dressed as labeled, vanilla containing artificial vanilla, monosodium glutamate "extended" with salt, choke cherry preserves with artificial coloring, imitation lemon juice, watered orange juice, poultry falsely labeled "pheasants and guinea hens," blended oils low in or without the olive oil claimed, and unlabeled pizza sauce. Among the deceptive animal feeds seized were meat scraps containing bristle, horn, hoof, and other non-edible animal parts, and cottonseed meal low in declared protein.

DRUGS AND DEVICES

Recalls.—Thirty-five defective or misbranded drugs were recalled by manufacturers during the year, 11 at the request of FDA. Eighteen were defective in composition because of low potency, deterioration, lack of sterility, etc. Six were recalled because they caused injuries—three earwax removers that caused inflammation in some users, an arthritis ointment that caused burns, and two veterinary preparations that were toxic to pigs. Another recall was made by an importer of an injection drug when studies in England indicated that large doses caused cancer in experimental animals.

Nine of the recalls were made to correct labeling—five were labeled with the names of other drugs, three required changes in ingredient statements, and one was labeled for over-the-counter sale, whereas it was limited to prescription dispensing by the terms of its new-drug application.

Illegal Sales of Prescription Drugs

A tragic episode in Arizona just before Christmas dramatized anew that drivers using amphetamines endanger our highways—a cattle

truck speeding down the wrong side of the highway collided with a bus, killing 9 people, injuring 31, and causing more than \$100,000 worth of property damage. Amphetamine tablets were found in the demolished cab of the truck and the drug was found in the blood of the dead driver, who had been on the road 48 hours without sleep.

A step-up in enforcement against illegal sales of amphetamines and barbiturates by persons unlicensed to dispense prescription drugs and untrained in the responsibilities attendant to such sales, is reflected in the fact that more court prosecution cases involved unauthorized sources than licensed pharmacists and drug stores, 82 and 80, respectively.

Although many cases were brought against truckstops, cafes, small peddlers, etc., the primary objective was to uncover their suppliers. Large quantities of amphetamines were seized after arrests of wholesale peddlers who had agreed to deliver the drugs to FDA inspectors they believed to be middlemen for truckstops.

In volume the largest case involved more than 786,000 tablets seized from the dwelling and car of partners who have been charged with conspiracy to violate the Food, Drug, and Cosmetic Act. Such wholesale operators are the keymen in the situation; many of them have criminal records for other underground activities.

Five cases were brought against medical practitioners, frequently tied up with truck-driver peddlers, on the charge of dispensing drugs without the physician-patient relationship so essential to good medical practice. Of 187 criminal actions charging drug violations 167 were based on illegal sales. Individuals and firms involved totaled 276.

Adulterated and Misbranded Drugs and Devices

A serious threat to the production of prescription drugs of standard purity and potency was an independent testing laboratory which was giving faked data on the drugs it tested for small drug manufacturers. The firm offered complete drug analytical work, including chemical, bacteriological, and animal testing.

FDA investigators found that the firm lacked the facilities to perform the work. FDA laboratory scientists prepared samples for analysis known to have different purity and composition than those declared on the label; the testing firm reported that they complied with the label statements. The fictitious information the firm supplied its customers included data for establishing the safety of a new drug. Prosecution resulted in fines, a 1-year suspended jail sentence for the president of the firm, and a 3-year probation under strict supervision by FDA.

Of equal danger to public health is the apparently widespread counterfeiting and repacking of potent drugs by bootleg-type operators who do not hold effective new-drug applications or have adequate con-

trol systems. Just as the fiscal year ended, FDA Districts were working with State drug officials and private investigators in developing evidence of large-scale distribution of counterfeits of trademarked new drugs, including some still in the stage of clinical investigation by the originators.

The 1959 report described two cases based on counterfeits of well-known brands of tranquilizers. The head of one firm then under indictment received a 6-month suspended jail sentence and is now working as a salaried employee of another drug firm; his former firm is out of business and his associate in the venture, who received a fine, has abandoned the drug business.

Inadequate manufacturing controls were found in a number of cases, resulting in nonsterile injection drugs or drugs below or above their labeled potency. In one prosecution case in which the firm and its president were fined \$3,500 a prescription drug was $2\frac{1}{2}$ times its labeled strength. The firm had a long history of failure to control the potency of its products, and had been previously fined for subpotency of vitamins. Charges were filed in 20 drug and device and 4 vitamin seizures that the items involved failed to meet standards set forth in official standards or their own labeling.

False and misleading claims were charged in 158 seizures of drugs, vitamin and dietary items, and therapeutic devices. Thirty-six of these were based principally on unfounded claims of weight reduction, and in many of the 38 vitamin and food supplement seizures such claims were prominent. Many of the purported reducers depended upon the supposed benefits of appetite depressants whose effectiveness has been disproved by controlled clinical tests conducted by a research group which included an FDA physician. In April a circuit court, in rejecting an injunction appeal by the distributors of a widely advertised product of this type, accepted the affidavits of medical experts that this drug (phenylpropanolamine) does not possess significant appetite-depressing properties as claimed.

Another "appetite suppressant" offered for weight reduction was tartaric acid in cigarettes promoted by such slogans as "puff your pounds away" and "watch your weight go up in smoke." A Federal court affirmed the Government's view that these cigarettes were not effective for weight reduction, and upheld the seizure in November 1959.

Other so-called weight reducers seized were supplements to low-caloric diets which would alone, if followed, result in weight reduction.

The devices seized because of unfounded claims for weight reduction were largely mechanical vibrators and massagers, usually promising "spot reduction."

Among the purported cancer "cures" each also offered for various other serious conditions were colored lamps sold as do-it-yourself

assembly kits, consisting of a lamp base, electrical fixtures and wiring, and five colored plastic slides. In addition to claims for cancer, this lamp was promoted in accompanying literature for glaucoma, arthritis, tuberculosis, scarlet fever, measles, influenza, and among others, "all diseases which may afflict the body of man." On June 7 a Federal court in Los Angeles issued a condemnation order for the seized lamp units and a permanent injunction against further distribution.

Another "cancer cure" consisted of tape-recorded organ music of "Smoke Gets In Your Eyes" priced at \$500, including a "sound therapeutic vibrator" that could be made from widely available parts for \$35. The patient could get the "message" and "treatment" by listening to the music with earphones and through electrical energy supplied by two wire-connected pads, with current pulses varying in voltage with loud or soft music. It was offered not only for cancer, but for diagnosing and treating pathological conditions of the head, lungs, heart, stomach, gall bladder, spleen, appendix, spine, cataracts of the eyes, and germ diseases.

Another device that was seized and distribution of which was halted provided two to three times the amount of radioactivity in a radium watch dial contained in eight quartz tubes imbedded in a plastic barrel. Another quartz tube containing blood taken from the patient was placed in the barrel, refrigerated for 24 hours, and reinjected into the patient in order "to establish the normal chemistry" of the body. It was recommended for cancer, diabetes, arthritis, anemia, and bone ailments and was used extensively in the treatment of mentally retarded children. At the end of the year it was under a temporary restraining order.

Most of the devices seized were innocuous apart from claims that turned people away from competent medical treatment, but danger to health was charged in seizures of nine shipments of a breast developer with a mechanical pump suction, best described as a modified milking machine, and in an injunction case involving a gynecological device.

False representations are still being made that vitamins, minerals, organically grown items, and various nutritional supplements are required to prevent or cure diseases caused by diets alleged to be universally deficient in nutritive value. FDA has continued its campaign to educate the public in the true value of nutritional advancements on the one hand, and the falsity of certain types of claims on the other. Typical are claims that the average American has a severe dietary problem because foods grown on depleted soil, or processed in accordance with our modern custom, lack essential nutrients that must be supplemented to prevent, cure, and alleviate many disease conditions.

A press conference by the Secretary of Health, Education, and Welfare, calling public attention to such misrepresentation, brought

one firm nationwide attention by release of a series of correspondence between the firm and the Secretary. When the prosecution case against the firm was tried there was no contest and a \$1,500 fine was assessed. Five other actions were brought for illegal sales promotion of nutritional items with unfounded medical claims.

Another firm and its officers, enjoined in 1950 from making claims through literature or house-to-house salesmen, for its vitamin-mineral preparation in violation of the Federal Food, Drug, and Cosmetic Act, were ordered by the Federal Trade Commission to cease and desist from making false claims, including: That the decree of injunction amounted to an endorsement of their product by the U.S. district court and the Food and Drug Administration; that the allowable claims listed in the injunction applied only to the product and to no competitive product; and that no other seller of vitamin and mineral products has the right to submit its promotional literature to the Food and Drug Administration for inspection and comment.

In a policy statement published in December, FDA warned that any claim, direct or implied, in the labeling of fatty substances offered to the general public that they will prevent, mitigate, or cure diseases of the heart or arteries is false and misleading, and will cause such substances to be misbranded. Many firms had been attempting to capitalize on the widespread interest in the possible relationship between blood cholesterol levels and heart and artery diseases. Legitimate research and clinical evaluation of unsaturated fats is under way, but the present data are incomplete and contradictory and promotion based on them is misleading. A number of seizures were based on false claims that the articles would lower blood cholesterol.

A best seller on folk medicine by a New England physician, was given wide publicity in popular magazines. In it he attributed miraculous curative powers to a combination of honey and vinegar. A local woman devised a "recipe" for the mixture and it was purchased by a national distributor of miscellaneous household products other than foods. A big publicity campaign was launched, with a tie-in to the book. Seizures were made as soon as interstate shipments began. The manufacturer is now attempting to devise labeling that will not misbrand the product.

Other products seized for false and misleading claims were not concentrated in any specific category, but included tonics, ointments, herbs, and other products with misleading claims for lay treatment of arthritis, respiratory troubles, canker sores, sexual maladjustments, and "that tired feeling."

New Drugs

During the fiscal year 480 new drug applications were received, 112 of which were for veterinary drugs. Within the same period 268

applications became effective, which includes 46 for veterinary drugs. Eight hundred and nineteen supplements, providing for changes in effective applications, and including 115 for veterinary drugs, were given favorable action.

Two effective applications were suspended without contest, and notice of hearing with respect to refusal of an application was given in one instance which resulted in its voluntary withdrawal. Requests for the voluntary suspension of 10 applications providing for the use of diethylstilbestrol as implants or injections in poultry were made to the respective firms. Notices of hearing issued to three of these firms which did not consent to suspension.

Among the new products introduced during the year were three antibiotics, one administered orally for fungus infections of the skin, scalp and nails, one for amoebic and bacillary dysentery and one for fungus infections of the vagina; a new anticancer agent; seven diuretics for the treatment of edema; a new anti-inflammatory corticosteroid and three steroids for enhancing the building-up processes of the body; a progesteronelike steroid, as an oral contraceptive agent; seven agents useful in the therapy of psychiatric conditions, five of which have a tranquilizing action and two of which are essentially stimulating. The list of new drugs for the year also includes a muscle relaxant, an antiepileptic, three products for the treatment of Parkinson's disease, two antihistamines, one narcotic for the control of pain, a barbiturate for general anesthesia by intravenous injection, a local anesthetic, a drug for lowering blood cholesterol, one for decreasing blood coagulation, an anticholine-sterase for the treatment of glaucoma, an enzyme to assist in the surgical removal of cataracts, an appetite depressant, a drug for the treatment of pinworms, three drugs to decrease nasal congestion, and an antiseptic gargle. One of the drugs introduced for veterinary medicine was a tranquilizer for use in chicken and turkey feed to combat "stressful environmental conditions" and aortic rupture in turkeys.

COSMETICS AND COLORS

A recall of a home-permanent kit was made by a cosmetic manufacturer when injury complaints were received of painful irritation when the neutralizer it contained inadvertently got into the eyes of some users. The firm notified retailers to stop selling the home-permanent kit and set it aside until the neutralizer solution was replaced.

A product labeled "Oil of Bergamot Synthetic" was seized because it consisted of imitation oil of bergamot and olive oil. A second cosmetic was misbranded by claims in an accompanying leaflet in violation of the drug provisions of the law. It was falsely represented to improve the hair and skin, help build blood, curb the appetite and

aid in losing weight, and to contain the amino acid necessary for tissue growth.

No court actions were taken against violative colors.

CERTIFICATION SERVICES

Coal-tar colors.—All coal-tar colors used in foods, drugs, and cosmetics (except hair dyes) must be from batches certified by FDA as harmless. In 1960, 5,588 batches representing 7,806,139 pounds were certified, and 40 batches representing 38,812 pounds, rejected.

Insulin.—All batches of insulin must be tested and certified before distribution. Examination of 350 samples resulted in the certification of 285 batches of 7 insulin drugs and 58 batches of materials for use in making insulin-containing drugs.

Antibiotics.—The predistribution testing and certification of certain antibiotics is also provided by amendments to the act. Examinations were made of 16,601 batches of penicillin, chlortetracycline, bacitracin, chloramphenicol, streptomycin, dihydrostreptomycin, tetracycline, neomycin, nystatin, novobiocin, erythromycin, polymyxin B, oleandomycin, and amphotericin B during the fiscal year. The last seven antibiotics are not included in the certification amendments, but are tested when they are mixed with those requiring certification. Seventy batches were found to be unsatisfactory by either FDA or the manufacturer for failing to meet the following standards: Potency (43), sterility (10), streptomycin content (5), pharmaceutical attractiveness (4), moisture (4), pyrogens (2), and solubility (2).

Enforcement of Other Acts

A total of 114,174,657 pounds of tea was examined under the Tea Importation Act. Rejections for failure to measure up to the standards set by the U.S. Board of Tea Experts totaled 222,736 pounds, or less than 0.2 percent. Five rejections were appealed to the U.S. Board of Tea Appeals, which upheld the decision of the FDA examiner in four cases and sustained the appeal in one.

A bowl cleaner was seized for failure to bear the word "poison" as required by the Caustic Poison Act.

No permits were issued for importations of milk from foreign countries, nor were any actions instituted under the Filled Milk Act.

New Court Interpretations

Two petitions for certiorari were filed with the Supreme Court during the fiscal year.

The Supreme Court denied the petition for review of a color case, thus upholding the Secretary's order delisting yellow colors No. 3 and No. 4 for use in foods.

Following their convictions for selling amphetamine drugs in violation of the Durham-Humphrey Amendment, which had been upheld by the Circuit Court of Appeals, a medical doctor and his wife filed petitions with the Supreme Court requesting review of their convictions. Certiorari was denied and the defendants are now serving their sentences.

A district court found for the Government in a case involving a manufacturer's request for a declaratory judgment that sodium nitrite and sodium nitrate at 200 p.p.m. or less in fish is generally recognized as safe. The court declined to substitute its scientific judgment for that of the Food and Drug Administration and held that the declaratory judgment procedure is not the proper way to handle questions under the Food Additive Amendment to the Federal Food, Drug, and Cosmetic Act but rather they should be handled under the Administrative Procedures Act.

In a seizure against chocolate mint candy alleged to be deceptively packaged, the district court found against the Government on the grounds that the package label bore an accurate statement of the quantity of contents and the type of package used was necessary to protect the mints during shipment. The Government has appealed.

A part-time pharmacist and drug salesman was convicted and sentenced under the Food, Drug, and Cosmetic Act to 8 years for the unauthorized sale of prescription drugs, including narcotics, without prescription. He appealed the conviction on the grounds that the Food and Drug Inspectors to whom he sold the drugs had used unfair means to induce the sales or, in other words, had entrapped him. Since the conduct of the inspectors was well within the permissible limits spelled out in the decisions covering the law of entrapment, the Court of Appeals for the 8th Circuit upheld the district court.

The U.S. Court of Appeals for the 5th Circuit upheld FDA's ballistic-type evidence proving the shipment of prescription drugs from an out-of-State manufacturer on the basis of their identity. A microanalyst identified them by means of punchmarks and other microscopic findings.

A district court ruled in a case involving seizure of cigarettes intended for reducing body weight that the product was a drug within the meaning of the act, and that it was misbranded with false and misleading claims. The Government charged in part that the product was a new drug and since there were conflicting views among the experts as to the safety of the product, the court upheld the Government's new-drug charge.

A district court dismissed a seizure case involving a device which in its assembled form had not moved in interstate commerce, but whose component parts had been received in interstate commerce, prior to their assembly, holding that the device was not within the

jurisdictional purview of the act. This decision did not follow the reasoning of other courts in earlier cases of a similar nature.

Changes in the Law and Regulations

Public Law 86-139, signed August 7, 1959, declares nematodes, plant regulators, defoliants, and desiccants economic poisons for the purposes of the Insecticide, Fungicide, and Rodenticide Act. This makes them subject to the tolerance procedures of the Pesticides Amendment when registered for use on raw agricultural commodities. It became effective on March 6, 1960, for substances in use prior to January 1, 1958, with 1-year extensions permitted for specific products, where there is no undue risk to the public health.

Public Law 86-537, signed June 29, 1960, amended the Food, Drug, and Cosmetic Act by requiring raw agricultural commodities which are products of the soil to bear labeling on shipping containers declaring the presence of preservative chemicals added after harvest, but exempts them from such declaration after they have been removed from such containers and are on display for retail sale.

Public Law 86-546, also signed June 29, provides for the centralization of food additives appeals on a single issue in one circuit court.

Two bills under active consideration during the year were not signed until July 12, 1960, but are included in this report because they require immediate regulation-making programs.

The Color Additive Amendments to the Food, Drug, and Cosmetic Act will replace original provisions of the act regulating coal-tar colors for use in foods, drugs, and cosmetics. Before the amendment, the law called for certification of such colors where it could be shown that they were harmless, but had no provisions for limiting the amount used. This made it necessary to ban the use of certain colors even though they were found injurious only in much greater amounts than customarily employed. There had been incidents where too much color had been used and illnesses had resulted.

The new amendment deals with all colors, whether or not derived from coal-tar, provides for batch certification where necessary, and authorizes tolerances where necessary to ensure safe use of colors. It will also require the retesting of all previously permitted colors where there is any doubt as to safety. It contains a cancer clause, similar to that of the Food Additives Amendment prohibiting the establishment of any tolerance for an additive shown by suitable tests to induce cancer.

The amendment became effective on its enactment, but an interim period of 2½ years is provided, during which commercially established colors may be provisionally listed while testing is carried on with a view to securing permanent status.

The Federal Hazardous Substances Labeling Act is not an amendment of the Food, Drug, and Cosmetic Act but largely a replacement of the Caustic Poison Act of 1927, which was outdated and limited in coverage to 12 specific caustics and corrosives. The new law applies to household substances which are toxic, corrosive, irritant, strong sensitizers, flammable, radioactive (if named by regulation), or pressure generators, if such articles may cause injury or illness from customary or reasonably foreseeable use, including ingestion by children.

Labeling requirements include the signal word "DANGER" on substances which are flammable, corrosive, or highly toxic, as defined in the act, and "WARNING" or "CAUTION" on all other hazardous substances. Affirmative statements, such as "Causes Burns" or "Vapor Harmful" or similar wording descriptive of the hazard are required, as well as "POISON" if the product is highly toxic. Instructions are required for first-aid treatment when appropriate and for handling and storage of packages which need special precautions.

Penalties include fines up to \$500, imprisonment up to 90 days, or where there is intent to defraud and mislead \$3,000 and 1 year, respectively. The law also provides for injunctions. It is similar to the Food, Drug, and Cosmetic Act in its provisions for factory inspection, sample collection, publicity, and coverage of imports. It becomes effective immediately, but no seizure or criminal penalty may be enforced until February 1961, with provision for extension up to 1 additional year for specific products.

Early in June at a Senate hearing on drugs, the Secretary of Health, Education, and Welfare made a number of recommendations to strengthen the drug provisions of the Food, Drug, and Cosmetic Act. On July 2, 1960, the Chairman of the Labor and Welfare Committee of the Senate introduced S. 3815, entitled "A Bill to protect the public health by amending the Federal Food, Drug, and Cosmetic Act so as to clarify and strengthen existing inspection authority thereunder; require manufacturers of new drugs to keep records of, and make reports on, clinical experience and other relevant data bearing on the permissibility of such drugs; require that drugs be prepared or packed under adequate controls to insure proper identity, strength, purity, and quality, and otherwise insure their compliance with the Act; and extend to all antibiotics the certification provisions of the Act now limited to certain antibiotics." Congress did not hold hearings on this bill nor did it complete action on the following bills which had been introduced earlier: Regulation of habit-forming barbiturate and amphetamine drugs, premarketing testing of cosmetics for safety, and making assault on FDA inspectors a Federal offense.

REGULATIONS

Drugs.—An interpretive statement was published in the Federal Register of March 25, 1960, bringing together in part 131 of the regulations warning statements on drugs and devices which had previously appeared in the act and published regulations and recommendations by FDA in trade correspondence. This is intended to help the trade in designing labeling in compliance with the requirements of the law that drugs and devices for over-the-counter sale must bear adequate warning statements for safe use.

Three drugs previously limited by their new-drug applications to prescription use were exempted from this requirement by regulation, on the basis of evidence submitted by their manufacturers that they were safe for over-the-counter sale under proposed labeling. Two were for oral use in the temporary relief of the symptoms of hay fever or other minor conditions. The third is a broncho-dilator for oral use in the temporary relief of cough due to minor conditions.

Section 130.9 of the new-drug regulations was amended to provide that a supplemental new-drug application is not required for a minor change which is not significant from the standpoint of safety. The applicant must, however, submit full details of the change and will be notified by FDA whether a supplemental application is required.

A proposal under study at the close of the fiscal year and published on July 22 would require manufacturers to make complete and reliable information for the use of prescription drugs available to physicians, and would also prevent the marketing of a new drug until the adequacy of the methods, facilities, and controls employed in its production were verified by establishment inspections when deemed necessary.

Forty-one new monographs and 1,431 amendments were added to the antibiotic regulations.

Food additives.—The 1958 Food Additives Amendment became effective on March 6, 1960, with provisions for 1-year extensions for specific substances when there was need for such extensions and no undue risk to public health would incur. More than 900 requests for such extensions were received and about 800 were granted before June 30, 1960. Most of them concerned substances for use in the manufacture of food packaging, processing, and storage materials. Publication was also made proposing or concluding that approximately 700 substances be generally recognized as safe for use in food, and therefore exempt from food additive controls.

One-hundred and seventy-six food additives petitions were received since the amendment was enacted, of which 27 did not require regulations. Eighteen regulations establishing tolerances were issued, 63 petitions were withheld from filing pending receipt of fur-

ther data from the petitioner or were voluntarily withdrawn. The remainder were in process at the end of the year.

A group specializing in the administrative handling of these petitions was established in the Office of the Commissioner to process the petitions and coordinate scientific advice from staff Bureaus. A new branch was also established in the Division of Food to review petitions and to confer with members of the industry concerning development of the required information, and with the field Districts concerning testing of proposed analytical methods. Accelerated programs of toxicity testing were put into effect in the Division of Pharmacology.

Coal-tar colors.—An October 21 proposal to withdraw FDA's outstanding certificates of harmlessness and suitability for use of seven coal-tar colors primarily used in food met industry requests for a hearing. On January 8 the hearing was denied, on the basis that the objections filed present legal questions that could not be resolved by a public hearing, and would have to be decided by the courts. One objection was not legally valid because a previous FDA action in the removal of two colors from the list of permitted colors had already been reviewed and upheld by the Court of Appeals for the Eighth Circuit. The colors involved are FD&C Orange Nos. 1, 3, and 4, and all batches of FD&C Red No. 1 that do not comply with specifications for that color established July 16, 1959. The effective date of the order was extended to April 6, 1960.

On October 6, 1959, action banning the use of 17 coal-tar colors used primarily in lipsticks was proposed and scheduled to become effective on January 6, 1960. On the filing of industry objections and a request for a public hearing, the effective date of the order was postponed. The hearing began on February 17 and lasted 11 days. The delisting of 3 of the colors (D & C Red Nos. 11, 12, and 13) was canceled after concluding that they should receive further study.

On June 15 on the basis of evidence presented at the hearing, a tentative decision was announced to remove the other 14 colors from the list for certification for unrestricted use in foods, drugs, and cosmetics, and allow their use for external drug and cosmetic use only. (This excludes use in lipsticks, wherein the article is partly ingested.) The colors involved are D & C Orange Nos. 5, 6, 7, and 17; D & C Red Nos. 8, 9, 10, 19, 20, 33, and 37; and D & C Yellow Nos. 7, 8, and 9.

The Color Additive Amendments, which were subsequently enacted before the delisting action became final, pave the way for establishment of safe tolerances for these colors whenever scientific evidence of their safety can be established.

Pesticides.—Ninety-six pesticide tolerances or exemptions were established for raw agricultural commodities, involving 15 pesticides.

In addition, tolerance levels were changed for 2 pesticides involving 43 commodities, and temporary tolerances were established for 2 pesticides involving 15 commodities. Since the enactment of the Pesticide Chemicals Amendment, 2,166 tolerances or exemptions have been established for 112 pesticide chemicals.

It was necessary to rescind the tolerance of 0.1 part per million for heptachlor when it was discovered that the pesticide undergoes a chemical change after it is sprayed on plants resulting in conversion into a new compound, heptachlor epoxide. Residues of the epoxide carry through in milk and meat from forage, on which heptachlor was widely used for controlling the alfalfa weevil. When the original tolerance was established, it was on the basis that the residues would consist of heptachlor and that such residues would not deposit in the milk of cows consuming treated grain or forage.

Exemption from the requirement of a tolerance for residues of the microbial pesticide bacillus *Thuringiensis Berliner* on certain food crops was established on the basis of evidence that the micro-organism would not be pathogenic to man or other warmblooded animals, though lethal to certain species of insects.

Food standards.—New standards were established for canned prunes, seedless grapes, berries, and plums. An order was published setting standards for orange juice and orange juice products, but objections were filed requiring a public hearing and the standards were stayed.

A number of amendments were made in existing standards. Pepsin or papain enzymes were permitted in enriched farina to facilitate quicker cooking. Butylated hydroxytoluene was permitted in par-boiled enriched rice to retard flavor deterioration. Edible oils were permitted to be rubbed on the rind of blue and Gorgonzola cheese to improve adherence of foil wrappers. Sorbic acid was permitted in consumer-size packages of spiced, club, and cold-pack cheese to retard mold development. Methylcellulose was added to the list of permitted emulsifiers of French and salad dressings. Spices, natural flavorings, and vinegar were added to permitted optional ingredients of canned pineapple. Additional vegetable seasoning ingredients were permitted in canned peas. Calcium salts were permitted for firming canned peppers. The designation of optional forms for label declaration of canned sweet potatoes was enlarged to provide for the names "halves," "halved," and "cuts." Tomato puree was permitted to be labeled as "concentrated tomato juice" when produced from whole tomatoes and concentrated to 21–25 percent solids.

Standards for artificially sweetened fruit jams and jellies for people on sugar-restricted diets were stayed on going into effect on January 28 because of objections requiring a formal hearing.

Two industry proposals—to permit flavoring fruit preserves with cherry liqueur and rum, and to permit adding citric acid to canned tomatoes—were denied without hearings.

Scientific Investigations

Constant research is necessary if FDA scientists are to keep abreast of the problems and responsibilities of food law enforcement. New problems of analysis, nutrition, toxicology, bacteriology, and pharmacology continually arise. Fortunately, new analytical tools and techniques have also become available. The seven Divisions which comprise the Bureau of Biological and Physical Sciences have made good use of many of them and have displayed considerable ingenuity in adapting them to the problems at hand. Increasing use is being made of paper and gas chromatography, polarography, mass spectrometry, spectrophotometry, bioassay, and radiochemistry. The use of many of the newer techniques requires special training and it has often been necessary to conduct special training programs and seminars.

During fiscal 1960 the Bureau was strengthened by the addition of 75 scientific personnel, technical assistants, and clerks.

Fifteen projects relating to the development of new methods or improvement of present methods for the assay of antibiotics were completed. Among them were development of tests for the new semi-synthetic potassium penicillin 152, and methods for assaying dairy products (cheese, butter, ice cream, powdered milk, etc.) for antibiotic residues. Twelve clinical studies in man, relating to the testing, action, and mode of administration of antibiotics, were concluded. A new powder for oral suspension, containing penicillin G plus triple sulfonamides, was tested; also a mechanical device, "hypospray," used to inject antibiotics. Five miscellaneous antibiotic research projects were completed. Ninety-one regulatory samples of cosmetics were collected and analyzed, most of them as a result of consumer complaints. New methods of analysis were developed for certain cosmetic preparations. A manual of cosmetic analysis was prepared and awaits publication. Work continues on the chemical structure and occurrence of intermediates of certifiable coal-tar colors.

Specifications for mineral oil, proposed as a food additive for many purposes, have been devised to ensure the absence of carcinogenic hydrocarbons. Development and improvement of methods for the detection and determination of pesticides and food additives are important continuing projects. A method which allows the analysis of milk for residues of DDT within 1 day's time was developed. Paper chromatographic methods for the detection of residues of six of

the more common pesticides were perfected and are in routine field use.

For some years FDA scientists have worked to replace the slow and costly chick bioassay for vitamin D with simpler methods. Chemical methods employing infrared spectrophotometry or fluorescence have now been developed. An official method for determining vitamin A in oleomargarine has been adopted. A tissue culture laboratory has been established; this technique allows the growth and reproduction of human and animal cells in artificial media. The effect on growth of suspect chemicals (additives, etc.) can then be studied in what is essentially a test tube manner. Sometimes effects too subtle to be observed in the intact animal can be noted.

Efforts to isolate and identify the toxic agent, associated with by-product fats, which causes edema and death in poultry have been continued.

Results of bacteriological examination of some 3,000 samples of frozen precooked foods, representing 81 separate items, were compiled during the year. As reflected by bacterial content, there is no doubt that sanitary practices of many frozen precooked food plants could be improved. Surveillance of the industry will be continued with major emphasis at the plant level.

Living *staphylococci* were found in 12 percent of 314 market milk samples. The organisms are now being typed and their resistance to various antibiotics is being checked. The concern is whether or not potentially dangerous antibiotics-resistant strains of *staphylococcus* are developing in milk and dairy products as a result of treating cows for mastitis with antibiotic preparations.

Development of methods for the detection of filth and decomposition in foods continues, with emphasis on fish, cocoa, cheese, fig paste, frozen strawberries, canned tomatoes, coffee, and grape products. Application of starch gel zone electrophoresis has been used in the species identification of fish and red meats.

Revisions of the U.S. Pharmacopeia and the National Formulary have appeared and their standards for drugs will become official on October 1, 1960. The Food, Drug, and Cosmetic Act designates the methods and standards of these compendia as official. FDA chemists have assisted in these revisions and have contributed new methods.

Work continues on the stability of insulin, digitalis, thyroid, and posterior pituitary preparations. Toxicity and cumulation studies were conducted on a number of pesticides. Various materials suspected of being carcinogenic were investigated. Studies, both biological and chemical, of the persistence and distribution of stilbestrol in the tissues of treated poultry, were conducted. Various additives and coal-tar colors are being checked for toxicity by means of long-

term feeding tests with animals, and gross and microscopic pathology of affected organs is being studied.

The pilot program for reporting unusual or adverse reactions to drugs was expanded, on a contract basis, to include more, but still a limited number of, hospitals representing a cross section of medical specialties. It is an outgrowth of a 4-year voluntary pilot study designed to develop information promptly on the untoward effects of the newer drugs. The information will be used in the resolution of medical problems associated with the safety of new drugs. Although such drugs have had most careful clinical tests in controlled experimental use, wide use in general medical practice sometimes brings to light effects not anticipated from the investigational studies. Such disclosures prompt measures for better public health protection, such as label changes as to dosage, warnings to physicians, formula changes, or, in extreme cases, withdrawal of the product from the market.

Veterinary medical research studies, some conducted on contract with State universities, included investigations of antibiotics in milk, efficacy of injectable iron products for swine, efficacy of drugs used in the treatment of poultry diseases, milk-level studies of sulfonamides in dairy cattle, and residues of stilbestrol in eggs from broody hens.

The one objective criterion in the oyster standard limits the amount of drained liquid or free liquor to 5 percent when tested in a specified manner within 15 minutes after packing. This has proved unenforceable through results obtained after interstate shipment. In its search for tests to correlate packing practices with examinations of shipped lots, the Government Industry Cooperative Research Project has developed 18 methods of which 3 in combination have given promising results with oysters produced in Chesapeake Bay. They must be tested with oysters produced on the Gulf Coast and West Coast before they can be considered in the formulation of new standards.

Enforcement Statistics

FDA inspections during the year consisted of 20,513 of inventoried factory and warehouse establishments, 2,098 of pesticide practices, 3,700 of food additives being employed, 3,594 of public eating places to check on the notification of the serving of oleomargarine, and 183 involving illegal sales of drugs. Of 32,788 domestic samples collected, 22,744 represented foods, 9,697 drugs and devices, 259 cosmetics and colors, and 259 miscellaneous.

In the 237 criminal actions terminated (or terminated for some defendants) in the Federal courts during 1960, fines assessed totaled \$186,004. Jail sentences ranging from 1 hour to 2 years were imposed in 48 cases involving 56 defendants. Twenty-three individuals were

required to serve imposed sentences, averaging 8 months; they were suspended for 33 on condition that violative practices be discontinued. Records of actions terminated in the courts were published in 1,755 notices of judgment.

Table 2.—Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1960

Item	Total		Criminal prosecutions instituted		Seizures accomplished		Injunctions requested
	Violative samples	Actions	Violative samples ¹	Actions	Violative samples	Actions	
Total.....	2, 893	1, 274	1, 279	248	1, 614	1, 002	24
Foods.....	1, 443	828	251	61	1, 192	757	10
Drugs and Devices.....	1, 442	443	1, 028	187	414	242	14
Cosmetics & colors.....	5	2	-----	-----	5	2	-----
Caustic poisons.....	3	1	-----	-----	3	1	-----

¹ The number of samples on which the actions are based always exceeds the number of actions; in seizures a variety of articles may be contained in a single shipment, while in criminal actions each sample usually represents a single shipment which forms one count of action.

Table 3.—Import samples collected, examinations made, and lots detained during the fiscal year 1960

Item	Samples collected	Examinations made	Lots detained
Total.....	13, 217	15, 475	4, 784
Foods.....	10, 045	14, 683	2, 613
Drugs and devices.....	2, 754	584	1, 951
Cosmetics, colors, miscellaneous.....	418	208	220

Office of Vocational Rehabilitation

Advances in Research, Training, Centers, and Workshops Give Program New Incentives

IN THE FISCAL YEAR that ended June 30, 1960,¹ the number of disabled persons who were helped to overcome their handicaps and find employment through the State-Federal program of vocational rehabilitation reached a new high of 88,275.

In addition to removing the prospect of dependency for this number of handicapped persons, there was substantial progress during the year toward new objectives that have come with expansion of the public program of vocational rehabilitation under provisions of Public Law 565, enacted in 1954.

There was a tremendous upswing in rehabilitation research during 1960. A considerably greater number of new projects seeking new knowledge or to test the validity of an idea or method were initiated than in any previous year. And there was continuing emphasis on the rehabilitation of those with severe disabilities, which produced a substantial increase in the number of special demonstration projects, as compared with 1955, to help those handicapped by mental illness, mental retardation, deafness, hearing loss and speech defects, cardiac diseases, epilepsy, blindness and visual handicaps, and orthopedic handicaps.

The training of workers in various aspects of rehabilitation received new impetus because more funds were available to expand support for training of professional personnel in all fields related to rehabilitation,

¹ Unless otherwise indicated, all subsequent reference to 1960 will be to the fiscal year, that is to say, the period between July 1, 1959 and June 30, 1960. Data on characteristics of those rehabilitated in fiscal year 1960 are estimated.

but especially in medicine, counseling, speech pathology and audiology, and prosthetics and orthotics.

Creation and operation of rehabilitation centers, workshops, and other facilities received noteworthy attention in communities and States in response to the demand for an increasing variety of settings in which intensive or specialized services can be administered. There was an increasing trend toward operation of rehabilitation facilities by State rehabilitation agencies. The number of rehabilitation facilities approved for construction under provisions of Hill-Burton legislation during the year was 41—seven more than in the previous year, and more than twice the number approved in 1958. And the increased importance of centers and workshops to the program is inherent in the total of 46 research and demonstration projects that are concerned with rehabilitation in these kinds of establishments.

REHABILITATIONS IN 1960

The new record in the number of persons rehabilitated into employment was nine percent more than in the previous year. Gains were made in all of the States but six, and in the District of Columbia, Puerto Rico, Guam and the Virgin Islands.

The preponderance of disability referrals continued to be among those with orthopedic disabilities—amputations and other crippling conditions. About 41 percent (36,000) referrals arose out of these conditions, and, of these, about three-fifths resulted from accidental injuries, about one-fifth were from poliomyelitis, osteomyelitis, or arthritis, and the remainder from other orthopedic impairments.

Referrals came from many sources, but the largest proportion (34 percent) came from physicians, health agencies, or hospitals. Another 14 percent was referred by public welfare agencies, and 7 percent by State employment service offices. About 12 percent applied for services on their own initiative. The remainder came from such sources as educational institutions, employers, and unions. Nearly half of the rehabilitants had dependents, and 63 percent were male.

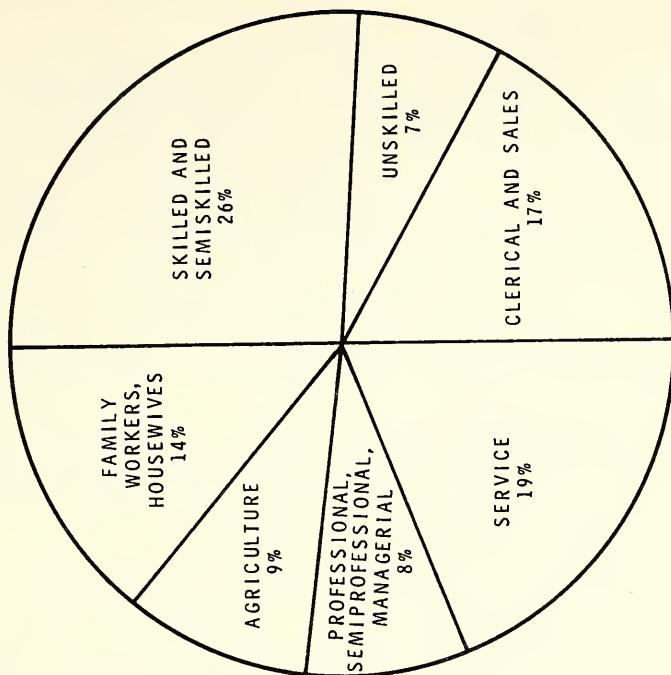
The occupations in which rehabilitants of 1960 were placed included nearly all types of work, including more than 4 percent who went into such short supply professions as teaching, engineering, and medicine. The proportions employed in other major occupational groups remain similar to those in previous years—skilled and semi-skilled, 26 percent; clerical and sales, 17 percent; service workers, 19 percent; family workers and housewives, 14 percent; professional, semi-professional, and managerial, 8 percent; agriculture, 9 percent; and unskilled, 7 percent.

At the close of the fiscal year, 180,000 other disabled people were receiving services from State rehabilitation agencies, against a total of 171,000 in 1959.

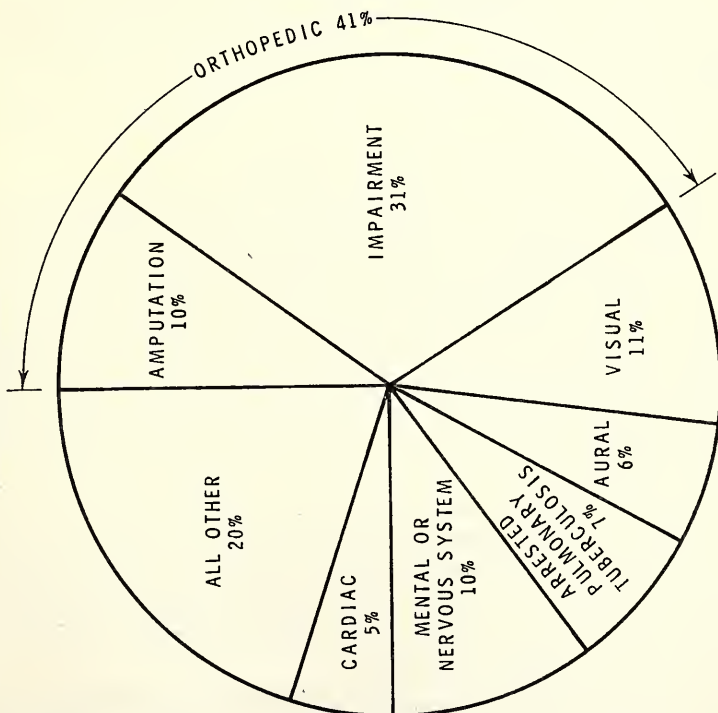
Chart 1.—DISABILITIES AND MAJOR OCCUPATIONAL GROUPS

Percent of rehabilitants, by types of disability at acceptance and by major occupational group at closure, fiscal year 1960

MAJOR OCCUPATIONS



DISABILITIES



ECONOMIC VALUE OF THE PROGRAM

The extent to which the public vocational rehabilitation program can improve the economic status of handicapped persons, increase the Nation's productive potential, and relieve some of the dependency upon public assistance was strikingly shown in 1960.

About 66,000 of the 88,275 handicapped persons prepared for and placed in employment during 1960 were unemployed when their rehabilitation began. The group that had been working at the time they were accepted for service were earning at a rate of about \$61 million a year and generally were employed in unsafe, unsuitable, or part-time work. In the first full year of employment for the entire group after rehabilitation, it is estimated that they will have earnings at the rate of \$171 million.

Nearly 18,000 of those who were rehabilitated received public assistance at some time during the process, at the estimated rate of \$17 million a year. The estimated total cost of the rehabilitation of these persons was about \$16 million, a one time outlay.

It is estimated further that those who were established or placed in employment through the public rehabilitation program will pay, during the remainder of their working lives, from seven to ten dollars in Federal income taxes for every Federal dollar invested in their rehabilitation, so that the conversion of so many persons from tax consumers to taxpayers is of pronounced economic benefit to the Nation.

Research Projects Set New Record

One hundred and one new projects for research and demonstration in vocational rehabilitation were approved during 1960, the largest number of awards made in any year since they were inaugurated in 1955. Eighty of the grants were for research and demonstration purposes. Twenty-one were selected demonstrations, in which knowledge and techniques emerging from research are applied in appropriate settings over wide geographical areas, to attain the widest and most rapid benefits for those persons within several categories of severe disability.

The 1960 grants amounted to \$2,911,482. With \$3,478,026 granted for continuance of 134 projects approved in previous years, expenditures for the year were \$6,389,508. There were 344 projects completed, in operation, or approved in the first six years of the research program, and the total expenditures for all projects were just over \$18 million at the end of the fiscal year.

Grants for projects are made to a wide variety of public and private nonprofit groups including universities, colleges, medical schools,

hospitals, rehabilitation centers, State vocational rehabilitation agencies, sheltered workshops and homebound programs, and many types of voluntary-private organizations. In general, these projects have as their objectives one or more of the following: a) Development of new techniques for treating, evaluating, training and vocational placement of disabled persons not previously helped because of lack of pertinent knowledge; b) Sharpening the effectiveness of existing methods by further study and testing of results derived from their application; c) Increasing the effectiveness of existing public and private programs by establishing special facilities and services to overcome inadequacies in vocational rehabilitation services which prevail on a regional basis; and d) Creating new job opportunities for demonstrating the capacity of disabled individuals to perform under competitive conditions in jobs previously closed to those with certain disabilities.

A National Advisory Council on Vocational Rehabilitation—a statutory body—reviews all project applications and makes recommendations to the Director of the Office of Vocational Rehabilitation in making grant awards. The Council is composed of twelve members appointed by the Secretary. They are leaders in the scientific, educational, or public affairs fields which contribute to the vocational rehabilitation of disabled individuals. Miss Mary E. Switzer, Director, Office of Vocational Rehabilitation, is Chairman of the Council.

Within the year there was a sharp increase in the number of selected demonstration projects. In 1959, there were 42 such projects in 29 States, but at the end of 1960 there were 64 projects in 37 States.

Selected Demonstrations in 1960

Occupational centers for mentally retarded.....	21
Work classification and evaluation centers for cerebral palsied.....	7
Work adjustment centers for disabled persons with emotional problems....	6
Occupational adjustment services for epileptics.....	2
Services for the homebound:	
Industrial homework.....	3
Vocational adjustment in a community home-care program.....	1
Blind and visually handicapped: Optical aids clinics.....	15
Work evaluation of older disabled workers.....	4
Rehabilitation of the chronically ill.....	2
Services to blind farmers.....	1
Rehabilitation of the mentally ill.....	2
Total.....	64

To the categories existent in 1959, three new ones were added during 1960. One was "halfway houses" for persons newly discharged from mental hospitals (based on State experience in this field) to provide group living for selected patients and so ease their transition back to the community. The second was based on experience gained in a project for demonstration of methods of evaluation, training and

placement of a group of men and women whose median age was 64 years. The third type of project was one for the training of blind persons in agricultural practices to prepare them for farm ownership or tenant operation.

MENTAL RETARDATION

A new national pattern of specific services to the mentally retarded is emerging from studies of this disability. A great deal of new knowledge is coming out of research projects supported by OVR grants, and is being applied through occupational training centers for the retarded that now number 21 in 18 States, with seven new ones that were added in 1960.

These centers are highly important in the rehabilitation of those who are mentally retarded. The approximately 3,000 such persons per 100,000 of our population is a high proportion compared to other severe disabilities. No medical treatment is known that reduces the severity of intellectual deficit in a person, so that this disability is lifelong. The greatest benefit to be expected for a retarded person is within social and vocational training, followed by carefully selected placement in highly selective jobs. For these reasons the new pattern of services for the mentally retarded is highly important.

Some of the projects that are expected to fill in this pattern are studies in such peripheral areas as evaluating the effectiveness of specific training in different lines of work and the value of varying the length of stay in training to fit individual needs; development of a standardized scale to assess individual training potential, and assessment of needs of certain States and appropriate services to meet them. The total number of grants related to mental retardation reached 36 by the end of the year.

MENTAL AND PERSONALITY DISORDERS

The nationwide attack on mental illness, spurred by the knowledge that on any given day about 600,000 mentally ill persons are in hospitals, has led to increased activity in research pertaining to their vocational rehabilitation. Eleven new projects—including “halfway houses” for the adjustment of discharged mental patients to community living—were approved during the year, to research and demonstrate several aspects of rehabilitation for the mentally ill.

Some of the projects are investigating the rehabilitation of alcoholics. Others are looking into methods of employability prediction, developing new patterns of psychiatric and vocational services for emotionally disturbed young people, or for clinical treatment and home economics training for homemakers recovering from mental illness.

Most of the projects are aimed at the growing concept of organization of the mental hospital as a therapeutic community, in which all of the personnel are trained and conditioned to the special problems met in working with the mentally ill, to foster and sustain delicately balanced relationships that are created.

CHRONIC ILLNESS

Five new projects were approved in the areas of chronic illness or aging during 1960. It is difficult to estimate the number of chronically ill, aged-disabled, or long term patients in this country. Current estimates indicate that there may be more than 5 million persons in the United States between 45 and 64 years of age who have been disabled by serious illness or impairing conditions. Of these, this Office has estimated that 1.5 million are feasible for vocational rehabilitation. The remaining 3.5 million persons include many who could be returned to some degree of self-care and independence through appropriate services.

Other estimates show that there are also about 5 million persons with consequential chronic diseases in the age group over 65.

New and previously approved projects in these areas have demonstrated that with proper evaluation, training and other rehabilitation services many of the chronically ill may be returned to work or may achieve greater independence. One project serving older disabled clients during the two-year period ending in 1960 placed 224 persons with a median age of 64. Another project approved in 1960 has found a relatively high degree of rehabilitation potential among severely disabled homebound persons as compared to other groups such as those cared for in nursing homes.

The total number of projects approved in this area is now in excess of 30. The impact of these projects on reorientation of hospitals, nursing homes, and other institutions engaged in rehabilitation, and the creation of services in the community for post-institutional care and employment continues to increase throughout the Nation.

BLINDNESS

Thirteen new projects in areas relating to the rehabilitation of blind persons were approved during 1960. Seven were research projects—investigation of auditory cues used by blind persons during travel; development of methods to train blind persons as piano tuners; a pilot training project in a medical center for ophthalmologists working on rehabilitation of the blind; collection and exchange of information on technical devices and aids for blind persons; training of blind persons as language translators; identification of problems inherent in rehabilitation of the rural blind; and a grant to the American Founda-

tion for the Blind for development of a nationwide program to attract qualified persons for work in the rehabilitation of blind persons.

One of the six selected demonstration projects was concerned with correlation of public and private services for blind farmers to help them to become owners or operators of farms. The rest were for establishment of optical aids clinics for persons with low visual acuity. There are now 15 such clinics in 14 States. The disabled persons who use these optical centers not only have new occupational opportunities open to them by removal of their classification as legally blind persons, but there is also frequent removal of barriers to education and other activities that are part of a normal life.

In one clinic situated in a university medical school, 148 of the first 180 patients examined had aids or glasses prescribed. Only 18 were beyond help of the clinic, and 14 more did not need or could not adjust to optical devices.

CEREBRAL PALSY

Two additional selected demonstrations providing work classification and evaluation services for persons disabled by cerebral palsy were approved in 1960. There are now eight of these projects.

More project activity is anticipated in this area in which it is estimated that there are between one-half and three-fourths of a million disabled, with an annual increase of approximately 10,000 births.

NEW VISTAS IN RESEARCH

Advances in the medical sciences have brought new demands for research, not only to keep pace with current developments, but to meet new challenges. Notable examples are the rehabilitation prospects for persons with such widely separated disabilities as hemophilia and spinal bifida. Both of these disabilities are so susceptible to treatment that persons with these conditions may now make plans for their future vocational life. Accordingly, research grants have been made for systematic exploration of the educational, social, and medical problems associated with both disabilities. There are 40,000 persons in the country known to have hemophilia, so that this disability alone is of considerable concern in future plans for vocational rehabilitation.

Advancements in modern engineering have produced a storehouse of miniaturized electronic, pneumatic and hydraulic mechanisms that may be adaptable through research to functional and sensory needs of the severely amputated or paralyzed. Two projects concerned with the application of external power in bracing were approved during the year and grants were awarded to five additional projects in the area of orthopedics.

New job opportunities are emerging for the handicapped, through research. For example, a project conducted by Georgetown Uni-

versity will develop methods for training blind students, selected nationally, to become Russian language translators to meet a growing national need for simultaneous translation services in research and intelligence fields.

Another project is studying the interplay of deafness and emotional disturbance, to learn how each affects the other, and to find the best procedure of dealing with both problems in the same patient. Previously the needs of emotionally disturbed deaf people have often been completely ignored in terms of their mental health because of their more obvious problems in communication which often completely masked the much more destroying effects of their psychic illness. On the basis of findings from this project it is expected that additional clinical demonstrations will be established to train professional workers in better ways to serve those patients.

Training Expanded to Cover Specialists in Several Fields

The sixth year of operation of the training program reflected continued progress in alleviating the serious deficiency of personnel trained in the various aspects of vocational rehabilitation.

An increase of 22 percent in available funds, from \$4,800,000 in 1959 to \$6,200,000 in 1960, made possible an expansion of support for training personnel in fields to which the highest priority had been assigned—medicine, rehabilitation counseling, speech pathology and audiology, and prosthetics and orthotics. There was also continued support of training in other professions with severe manpower shortages, especially physical therapy, occupational therapy, nursing, social work, and psychology. Gains were made in new programs for the training of specialists in rehabilitation of the deaf and the blind; and, as most of the medically related professions were represented, it was possible to continue several inter-disciplinary projects.

The number of teaching grants to educational institutions for basic or advanced professional training increased from 143 in 1959 to 186 in 1960. The amount granted for teaching was slightly in excess of the amount granted for traineeships, a reversal of a previous trend. This may be attributed to new teaching grants for programs designed primarily to strengthen and improve curricula in the area of rehabilitation concepts and techniques, a necessary first step before students can be trained effectively.

Teaching grants are made to educational institutions to enlarge and strengthen these curricula with a bearing upon rehabilitation and, where necessary, to employ additional faculty for classroom teaching

or supervision of clinical practice. Traineeships are granted to further the expressed interests of students in careers in rehabilitation.

MEDICINE

Programs for the training of undergraduate medical students in rehabilitation medicine have been established in 35 of the 86 approved schools of medicine and osteopathic medicine, as compared with 25 in 1959. Since physical restoration is frequently a prerequisite for effective vocational rehabilitation and the number of specialists in physical medicine and rehabilitation is far below that needed to meet the demands by medical schools, teaching hospitals, and rehabilitation centers, physicians are receiving traineeships for study during their residency training.

On June 30, 1960, there were 127 physicians with OVR stipends enrolled in residency training programs, an increase of 20 percent over the enrollment at the end of 1959, when 105 physicians were receiving traineeships. In order to stimulate interest in rehabilitation and to encourage their future specialization, fellowships were granted to about 60 undergraduate medical students for research or for clinical service in rehabilitation during their vacation period.

REHABILITATION COUNSELING

Rehabilitation counseling courses continued to receive a large proportion of funds allotted for training. A minimum of 600 trained counselors per year is required to meet the growing need in State vocational rehabilitation agencies and community rehabilitation programs.

The number of universities with rehabilitation counselor training programs in actual operation has grown from 11 in 1955 to 29 in 1960. Two others initiated active planning in 1960 with a view to admitting the first students in the 1960-1 school year.

Full-time enrollment in the 29 programs numbered about 535. The number of students ranged from five to 45, with 17 as the median.

Rehabilitation counselor training programs have graduated about 875 since 1955.

Intensive work has been started on curriculum content in the rehabilitation counselor training programs, the majority of which are two-year courses leading to a master's degree or to an advanced certificate in rehabilitation counseling.

SPEECH PATHOLOGY AND AUDIOLOGY

The critical shortage of speech and hearing therapists qualified to provide services to the approximately 6,000,000 persons above school age with significant speech and hearing problems, prompted grants to 22 of the approximately 70 universities with graduate training programs in speech pathology and audiology, as compared with 12 in

1959; and traineeships were granted for 90 students in 1960, more than double the amount in 1959. Although the 400 students currently enrolled is producing far less than a recognized need of 1,500 graduates a year, OVR grants are making it possible for more training programs to include specific content on rehabilitation of adults with communication disorders and for more students to secure essential graduate training.

PROSTHETICS AND ORTHOTICS

Since 1957, OVR has provided support to three university training centers, one in California, one in New York and one in the midwest, for short-term courses for physicians, therapists, prosthetists, orthotists and rehabilitation counselors in various aspects of the fabrication, fitting and training in the use of prosthetic and orthotic devices. In 1960 such courses reached over 1,300 persons, the largest number since initiation of the program.

OTHER PROFESSIONAL FIELDS

An insufficient supply of teachers for schools of occupational therapy and of physical therapy has for years delayed their expansion. Grants for traineeships for graduate study have made it possible for a small number of experienced therapists to secure advanced preparation, and so improve the quality of teaching.

In 1958-9, fifteen physical therapists did graduate work under OVR traineeships which enabled five of them to be employed in 1960 as physical therapy instructors. Three of these five are in new schools established in geographical areas which had great need for them.

The shortage of personnel, qualified by training and interest, to work with the 200,000 to 300,000 deaf persons in the United States brought establishment of an ad hoc committee of leaders of the deaf in February 1960, to plan for the training of personnel involved in rehabilitation of deaf persons. Short-term courses were held to orient personnel to the social and vocational aspects of deafness, on the development of rehabilitation facilities for the deaf, and on psychological assessment of deaf persons.

REHABILITATION OF THE BLIND

Courses for rehabilitation counselors on placement of blind persons in competitive occupations have been continued and now have reached about one-half of the 200 rehabilitation counselors in State agencies who carry responsibility for placement of blind persons. A new training program for mobility instructors of the blind, peripatology, has been established and has enrolled eight students interested in a career of teaching blind persons physical orientation and independent

travel. This is the first such course under university auspices and leads to a master's degree in peripatology.

MENTALLY ILL AND THE MENTALLY RETARDED

Ten institutes of workshops specifically related to training courses for rehabilitation counselors and others concerned with the mentally ill or retarded were in operation during the year. Emphasis is on the hospitalized patient and his return to the community, including job placements in the face of prejudicial attitudes on the part of prospective employers, and on mental retardates for whom there is a more optimistic outlook. Remunerative employment possibilities are now being discovered for the mentally retarded through sheltered workshops, properly planned training programs and increased understanding of their needs, educability and other potentials.

EPILEPSY

The first national institute on the Total Rehabilitation of Epileptics was held during the year. An OVR grant enabled 50 leaders in rehabilitation of epileptics to meet as a pilot project for regional, State, and local workshops where counselors and selective placement specialists can be trained in the unique vocational needs of epileptic persons. Surveys show that new methods of treatment and new medicines provide ways for at least 80 percent of epileptic adults, when properly placed, to become capable of productive employment in a broad category of jobs.

Specialized Facilities in Demand for Treatment of Severely Disabled

Rehabilitation facilities in increasing variety are needed as the attack on disability widens and deepens. The principal types of facilities are rehabilitation centers and rehabilitation workshops, but there is increasing demand for specialized facilities for those who are mentally retarded, deaf, blind, or emotionally disturbed. Integrated planning for the development and use of facilities is based upon the Vocational Rehabilitation Act and provisions of the Medical Facilities Survey and Construction Act of 1954 (Hill-Burton) authorizing Federal assistance in construction of rehabilitation facilities.

ESTABLISHMENT OF FACILITIES

In fiscal year 1960, 29 States spent funds for establishing rehabilitation facilities and workshops under basic support and the extension and improvement provisions of the 1954 amendments. Sixty-five State agencies now include provisions in their State plans per-

mitting them to establish either rehabilitation facilities or workshops.

In fiscal year 1960, these State rehabilitation agencies expended for rehabilitation facilities and workshops from State and Federal funds a total of \$2,400,000—approximately the same amount as in 1959—with the Federal share amounting to \$1,600,00.

Forty-one new facilities under the Medical Facilities Survey and Construction Act of 1954 were jointly approved in 1960 by the Surgeon General of the Public Health Service and the Director of the Office of Vocational Rehabilitation. Their total cost was \$21,026,096, of which the Federal share was \$7,569,971. Expenditures under this Act for rehabilitation facilities since its enactment in 1954 amount to \$100,742,783, of which sum the Federal share was \$28,716,686. Assistance was given to 147 different rehabilitation facilities in 46 States. Federal allotments to the other four States were transferred to adjoining States where citizens of the transferring States could be served. Most of these facilities are medically oriented but legislation is pending in the Congress to provide additional authority for Federal assistance in constructing vocationally oriented facilities as well, to permit establishment under the Hill-Burton act of less than comprehensive medical rehabilitation facilities of the physical medicine type in hospitals.

OPERATION AND USE OF FACILITIES

At the close of fiscal year 1959 1,480 disabled clients of State agencies were employed in sheltered workshops, 75.4 percent more than in 1954.

In the 1960 fiscal year, State vocational rehabilitation agencies purchased services from rehabilitation facilities for 10,700 clients, as compared with 2,400 in fiscal year 1955. The State agencies expended \$4,800,000 for these services in 1960 as compared with \$900,000 in fiscal year 1955.

ENCOURAGING NEW METHODS AND TECHNIQUES

The operators of rehabilitation facilities and those who purchased their services were aided extensively in 1960 through research and demonstrations and short-term intensive training programs.

A total of 46 research and demonstration projects have been approved which are immediately related to rehabilitation in a facility. In addition, 39 special demonstrations are underway, all but one in a workshop setting.

An authoritative guide for architectural design of rehabilitation centers, developed cooperatively by the Conference of Rehabilitation Centers and Facilities, the American Institute of Architects, and the Pennsylvania State University School of Architecture, has been made available, and is receiving wide acceptance.

There is ever-increasing interest in activities concerned with the evaluation phase of the work potential of the disabled. A relatively new service in rehabilitation facilities is pre-vocational evaluation to determine the potential of handicapped people receiving service in rehabilitation centers and workshops. Under sponsorship of the State University of Iowa, widespread current research and experimentation along those lines was summarized in 1960 and made available to all centers.

As the number of facilities increase and as more insurance companies, State rehabilitation agencies, and others purchase service from them for handicapped people, there is more demand for recognized standards for such facilities by which all who use them may judge the quality of the services they offer. Major efforts are underway, with financial assistance from the Office of Vocational Rehabilitation, to develop such standards.

A National Institute on Workshop Standards is the vehicle established to carry out the purposes of a grant made through the Office to the National Rehabilitation Association and the National Association of Sheltered Workshops and Homebound Programs for strengthening standards of workshop practices.

Educational Opportunities for Mentally Retarded Accelerated

A new viewpoint on mental retardation within recent years has brought accelerated action toward improving educational opportunities for this group, and new research into the causes and prevention of this disability. Activities of the National Association for Retarded Children have helped greatly to focus national attention on mental retardation, and to combat a prevalent attitude that a mentally retarded person has little hope for the future. In keeping with a public awakening to this disability, and a noted tendency of families to seek services for these handicapped persons (rather than keeping them in the background) the demands for vocational services have increased markedly.

In attempting to train retardates for industry and to place them, both the Office and State vocational rehabilitation agencies recognized the need to greatly augment the number of vocational training facilities. It was also readily apparent that greater consideration should be given to the skills which might be acquired at various levels of retardation and the extent of social adaptation which might be expected through a training experience.

The number of research and demonstration projects relating to mental retardation was increased by 14 during 1960, making a total of 36 that have inquired into this aspect of vocational rehabilitation since

the advent of rehabilitation research. Seven of the new projects were special demonstrations, supported in part by the OVR to put to practical use over a broad geographical area, the knowledge gained through research. The other seven projects were in new areas of research and demonstration.

Most of the States now assign vocational rehabilitation counselors to work with the State training schools. Many schools, in addition to their special education programs, provide opportunities for vocational training. Since only five percent of the estimated three and one-half million mentally retarded persons in this country are institutionalized, and many of them will never be able to care for themselves, a much greater problem lies in locating and providing appropriate services for those outside of institutions. Toward this end State vocational rehabilitation agencies are increasing efforts to provide special counselors to work with the public school system. In this way early counseling and guidance is available for the retarded youth who might otherwise become lost in the community upon completion of his required schooling, or for those who drop out of school.

With this increasing emphasis on work with the retarded it has become evident that counselors carrying these caseloads are in need of some special preparation. Last spring the Office of Vocational Rehabilitation called together a group of experts in this field to assist the planning of a long-range program for intensive short-term training of personnel concerned with mental retardation. Plans are now under way in several regions for workshops based in universities and utilizing faculty particularly knowledgeable in this area of disability. During the past year training grants were made to four universities for such workshops.

MENTAL ILLNESS

Opportunities for rehabilitation of the mentally ill have greatly increased in recent years, through more effective use of established facilities and the addition of new ones, in which more precise and more productive rehabilitation procedures emerge from research.

Ten research projects relating to mental illness have been completed since initiation of rehabilitation research, several of which have been incorporated in State programs. Eighteen projects are currently active. Grants have been made to three States for operation of "half-way houses," modeled after the three established earlier by one State agency. Several other State agencies are operating facilities in State mental hospitals to provide pre-vocational and vocational training.

Several States have increased staffs assigned to work with the mentally ill. Training grants were made during 1960 to two educational institutions for short term training of workers with the mentally ill.

Several regionwide workshops during the year—some with universities and the National Institute of Mental Health as co-sponsors—helped to orient community and State agency staff in new aspects of helping the mentally handicapped, and it is to be noted that out of such workshops has come inspiration for several research projects in mental health.

Services Expanded for Those With Communicative Disorders

The nationwide emphasis on improvement of vocational rehabilitation services for persons who are deaf or who are hard of hearing was marked by two significant trends in 1960, both with considerable promise for the future. There was an awakening of interest in the rehabilitation of deaf persons on the part of professional workers in disciplines other than those concerned primarily with the field of deafness. There was also greater participation in this phase of vocational rehabilitation by persons who are deaf and engaged in professional pursuits, who bring fresh viewpoints on the ways that vocational rehabilitation services can be made more effective to meet the needs of this handicapped group.

A noteworthy step was taken in April 1960 when staff from the OVR participated in the annual meeting of the Conference of Executives of American Schools for the Deaf. The OVR group brought into sharper focus some concepts and needs of deaf people which are not always appreciated, but are basic to their success in rehabilitation. After stating the prime need for effective communication leading to the full exchange of thought, the symposium concluded that there should be emphasis on the concept of persons with communicative disorders as individuals rather than a labeling of them as "the deaf," a categorical designation which often hampers their employment opportunities and social acceptance. It was also held that there should be the same standards of performance for deaf persons as for persons with normal hearing, to eradicate existing patterns of paternalism. It was also stressed that deaf people should have opportunity to receive special services, as required, in rehabilitation facilities staffed with personnel trained in work with deaf people and with programs designed to meet their special needs.

A conference of outstanding research workers at Gallaudet College in June 1960, identified some important researchable problems on vocational rehabilitation of the deaf and indicated their relative priorities, to call these needs to the attention of research workers in many disciplines.

In July 1960, a demonstration rehabilitation counseling center was established at Gallaudet College, aided by a grant from OVR. This center, staffed by psychologists interested in working with the deaf, is designed to serve as a model for others over this Nation, and to become a source for research in the counseling and guidance of the deaf.

Services to the Blind

Some of the more imperative needs of blind people and of those with impaired vision came closer to fulfillment during the year through the training of persons in key professions and specialties.

A study of the doctor-patient relationship when blindness occurs was initiated through a grant to support a seminar on blindness for ophthalmologists in the Georgetown University Medical School. This is the first course of this kind ever given by an institution of higher learning.

Another course activated for the first time in a graduate school, and made possible by a grant, is a training course for sighted instructors of the blind in mobility. This gives fourteen months training depth not merely of physical problems of blindness, but of associated motivational ones.

The placement of blind persons in industry requires special knowledge of the problems involved. A training grant to Southern Illinois University is supporting a project for development of new techniques in finding suitable employment and in placing blind people in various kinds of jobs.

Further advancement in the rehabilitation of blind persons into agricultural pursuits was made with the completion of a project by the Alabama Institute for Deaf and Blind, with respect to the needs of the blind farmer. The project was supplemented with a film and a brochure, to be used for explanation of the project's results to other State agencies and organizations.

An educational experiment for the blind was initiated with a research grant to Georgetown University to support an effort to teach aural Russian to blind persons, with the ultimate purpose of training them as Russian-English translators.

VENDING STANDS FOR THE BLIND

New records were made in the vending stand program in 1960. At the end of the fiscal year a total of 2,078 stands operated by blind persons for the full or for part-time periods had been reached. Approximately a third of them were on Federal property, and the rest on State, local, or private property. Some, operated in such places as national parks, were seasonal. The stands had a gross business of \$38,219,340, or ten percent more than the year before; they returned

\$7,541,304 in net profits to 2,216 operators; and the average profit for all operators—full and part time—was \$3,688.

Services for Elderly Disabled Expanded

The steady growth in the number of persons of 45 years or more in the population is accompanied by a growing number of rehabilitations of the disabled among them. This is a reflection of increased attention to this group, growing research into methods and techniques for serving older persons, and the expenditure of more available State funds for their rehabilitation.

In 10 years the percentage of rehabilitations of disabled persons of 45 years or more, as a part of the total number for the year, grew from 24 percent in 1950 to an estimated 30 percent in 1960, more than 28,000 of the total of 88,275.

State expenditures have swung upward steadily for rehabilitation services to the aging. In 1955, about \$9 million, or close to a quarter of total expenditures of State agencies for the year, were for disabled persons of 45 years or more. In 1959, this figure was an estimated \$20 million, and rose to an estimated \$24 million in 1960, or approximately 30 percent of total expenditures.

Research into problems of rehabilitation for the aging was expanded during the year to about 30 projects. One of the demonstration projects completed during the year was among aged persons confined to a county institution. One accomplishment of the project was the case of a 72-year-old woman who hadn't walked in years, and became ambulatory after appropriate services. Another was that of a man 77 years old, believed to be incurably deaf, who regained power of communication. The methods developed in this project are now being used in similar demonstrations in other parts of the country.

Medical Aspects of Program Are Expanded

There was intensification of the medical aspects of vocational rehabilitation during the year. Appointment of an Assistant Director for Health and Medical Activities and an additional medical officer, and establishment of a Medical Advisory Committee for the program were in response to indicated needs for widening of the medical phases of vocational rehabilitation.

A principal objective of these actions was the greater provision of medical consultative services for State rehabilitation counselors, so that better evaluations could be made of disabilities and work potentialities of persons referred to the State agencies, and for the planning of realistic vocational goals. Four more regions are receiving medical

consultation through services provided by Public Health Service medical officers servicing both OVR and PHS programs at the regional level. Through efforts of the Central Office, States are being stimulated to use medical consultation on a person-to-person basis between physicians and counselors for the discussion of individual cases.

The huge need for physicians trained in physical medicine and rehabilitation is urgent and continuous. An advisory panel for the medical training program was named during the year to establish training criteria and to plan the enlargement of the medical training activities.

Small Business

State agencies are intensifying efforts to find rehabilitation opportunities for the disabled through self-employment, small business, industrial subcontracting, and the manufacture of products by the handicapped, including homebound.

About 10 percent of the 88,275 disabled persons rehabilitated through the State-Federal vocational rehabilitation program in 1960 became self-employed, with the aid of their State agencies. In addition, about 1 percent of all rehabilitants were employed in a State agency-managed business enterprise.

Additional opportunities are expected from a new program entered cooperatively by the Office of Vocational Rehabilitation, several State agencies and the Office of Education to determine how educational programs in distribution services can be utilized for small business enterprises.

Expenditures for State Programs

Funds available to State rehabilitation agencies for their basic programs have more than doubled since 1954. States and the Congress both have increased available funds by more than 100 percent in that period.

The total of Federal funds that was granted to States in 1960 for support of their basic programs was \$49,072,022, about eight percent more than in 1959. Nineteen States—Alabama, Arizona, Arkansas, Connecticut, Delaware, Georgia, Iowa, Kentucky, Massachusetts, Nevada, New York, North Dakota, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Vermont, Washington, West Virginia, with the District of Columbia, Guam and the Virgin Islands—acquired all of the Federal allotments available to them by making available sufficient matching amounts. Five States acquired more than 95 percent but less than 100 percent; two States, 90 to 95 percent; six States, 80 to

90 percent; seven States and an island possession, 70 to 80 percent; six States, 60 to 70 percent; three States, 50 to 60 percent; and two States, less than 50 percent.

Eight States, the District of Columbia and Guam spent more of their own money on rehabilitation objectives in 1960 than was required to gain their full allotments, making an aggregate additional expenditure of more than \$1 million for rehabilitation objectives.

Extension and Improvement Grants

A total of 99 projects were initiated by 57 rehabilitation agencies in 43 States during 1960, aided by Federal funds granted under extension and improvement provisions of the Vocational Rehabilitation Act. These grants were used for establishment of rehabilitation facilities or workshops, improvement of specialized services to disability groups, or improvement of program and administration.

Federal funds for these purposes totaled \$987,171 in 1960.

State Plans

State rehabilitation agencies are in greater degree making use of the provisions of the Vocational Rehabilitation Act under which they may establish facilities or workshops. Each State agency—they total 54 general agencies and 36 serving only the blind—must have plans outlining their administrative and program courses. Fifty-eight of the 90 agencies—40 general and 18 for the blind—now have in their plans provisions for establishment of rehabilitation facilities. Fifty-four agencies—35 general and 19 for the blind—have provisions for workshops.

Since 1955, provisions for facilities have been added to the Plans for 31 agencies, and those for workshops have been added to 21 Plans.

The States have spent \$10,500,000 for establishing facilities and workshops under these provisions.

OASI Disability Determinations

All persons applying to the Bureau of Old Age and Survivors Insurance for disability insurance benefits under 1956 amendments to the Social Security Act are, as a matter of government policy, considered for possible rehabilitation services.

During 1960, State rehabilitation agencies made approximately 300,000 initial determinations of disability among these applicants, screened about 350,000 applicants for rehabilitation potential, and accepted 35,000 of them for services.

Three research and demonstration projects have been initiated that

relate to the improvement of methods for determining disability among these applicants and for assessing their rehabilitation potential.

REHABILITATION AND LABOR HEALTH SERVICES

Increasing opportunities have arisen in recent years for collaborative effort among OVR and many groups with interests in rehabilitation. Organized labor, for instance, is represented on the National Advisory Council for Vocational Rehabilitation, and AFL-CIO community councils are active over the country in projects for improvement and extension of rehabilitation services.

In furtherance of this activity, an institute was held in December 1959, with the help of an OVR grant, in which representatives of labor, health, and rehabilitation services participated. Out of the institute came guidelines of particular usefulness to State rehabilitation agencies and counselors in developing statewide working relationships with labor and similar groups for more effective rehabilitation measures. Additional State and local meetings have been planned for the coming year.

International Activities

Research into rehabilitation is to be extended to or expanded in nine countries through the use of counterpart funds which have accumulated to the credit of the United States in those countries in recent years. During the year the Congress was requested, and acceded, to appropriate a total of \$930,000 for the purchase of foreign currencies in Brazil, Burma, India, Indonesia, Israel, Pakistan, Poland, UAR-Egypt, and Yugoslavia, for rehabilitation research, with the required expenditures within these countries.

The International Unit has assembled a considerable volume of materials describing the possible areas of research in each of the nine countries, and discussed them with the State Department, along with the general policies of administration that will govern the programs.

Additional opportunities for international research will become available with activation of the principles to be initiated under the International Health Research Act passed by the Congress and signed into law during the year.

FOREIGN TRAINEES

Visitors from 39 foreign countries came to the United States during the year for study and observation of rehabilitation practices. Of the 104 who came, 31 were long-term trainees for whom detailed programs of study in universities and agencies were prepared. Seventy-three short term trainees were referred to OVR by voluntary agencies, universities, departments of the Federal government and international organizations for whom visits to installations and courses of observation were arranged.

Table 1.—Number of referrals and cases, by agency, fiscal year 1960

Agency ¹		Referrals			Cases				
		During fiscal year			Re-main-ing at end of year ³	During fiscal year			Re-main-ing at end of year ⁶
		Total	Accepted for serv-ices	Not accept-ed for serv-ices ²		Total active load (receiv-ing serv-ices)	Closed from active load		
Reha-bilita-ted	After reha-bilita-tion plan initi-ated ⁴				Before reha-bilita-tion plan initi-ated ⁵				
United States, total.....	379,650	126,839	130,637	122,174	297,950	88,275	10,396	18,791	180,488
Alabama.....	8,342	3,827	1,622	2,893	9,324	2,563	338	481	5,942
Alaska.....	526	164	290	72	417	54	57	108	198
Arizona:									
General.....	1,564	578	553	433	1,295	455	65	72	703
Blind.....	117	54	37	26	172	30	12	7	123
Arkansas.....	7,873	2,944	3,337	1,592	5,456	2,368	184	161	2,743
California.....	24,358	6,166	13,536	4,656	15,111	2,382	827	2,687	9,215
Colorado.....	4,201	1,740	821	1,640	3,173	908	163	114	1,988
Connecticut:									
General.....	2,542	1,538	407	597	4,023	1,014	209	331	2,469
Blind.....	199	94	57	48	207	63	14	0	130
Delaware:									
General.....	1,419	669	500	250	1,349	504	10	116	719
Blind.....	58	28	21	9	47	19	6	4	18
District of Columbia.....	4,269	884	2,656	729	2,081	488	92	234	1,267
Florida:									
General.....	14,329	4,698	6,263	3,368	9,609	3,382	452	572	5,203
Blind.....	3,672	404	2,059	1,209	1,053	280	56	47	670
Georgia.....	21,084	6,676	6,453	7,955	12,614	5,914	310	441	5,949
Guam.....	171	32	14	125	82	4	3	0	75
Hawaii:									
General.....	1,406	328	476	602	688	220	45	12	411
Blind.....	30	13	4	13	67	17	9	0	41
Idaho:									
General.....	1,958	393	868	697	958	356	33	25	544
Blind.....	34	14	10	10	45	10	1	3	31
Illinois.....	13,337	6,097	4,453	2,787	14,537	4,219	444	1,172	8,702
Indiana:									
General.....	2,989	1,620	720	649	4,025	1,232	83	202	2,508
Blind.....	188	86	57	45	230	40	16	22	152
Iowa:									
General.....	5,200	1,535	1,558	2,107	3,747	1,219	156	189	2,183
Blind.....	280	93	121	66	192	40	5	13	134
Kansas:									
General.....	3,788	1,413	1,017	1,358	3,051	889	91	146	1,925
Blind.....	331	93	76	162	251	60	6	8	177
Kentucky.....	6,564	1,643	2,525	2,396	3,907	1,313	157	249	2,188
Louisiana:									
General.....	5,034	3,015	978	1,041	7,722	1,814	307	499	5,102
Blind.....	849	203	213	433	659	115	17	19	508
Maine:									
General.....	1,936	547	517	872	1,334	375	64	123	772
Blind.....	167	76	54	37	151	32	9	19	91
Maryland.....	5,370	2,201	1,351	1,818	5,743	1,413	136	573	3,621
Massachusetts:									
General.....	6,608	2,250	1,663	2,695	5,115	1,656	131	279	3,049
Blind.....	364	150	93	121	424	81	33	37	273
Michigan:									
General.....	9,232	3,785	1,998	3,449	10,000	3,216	503	191	6,090
Blind.....	385	218	87	80	484	106	41	49	288
Minnesota:									
General.....	7,185	1,741	2,466	2,978	5,051	1,251	226	99	3,475
Blind.....	959	140	349	470	438	86	11	23	318
Mississippi:									
General.....	3,194	1,656	514	1,024	3,426	1,284	72	142	1,928
Blind.....	925	352	387	186	923	287	27	19	590
Missouri:									
General.....	7,634	2,263	3,110	2,261	4,776	1,544	214	221	2,797
Blind.....	718	175	242	301	539	174	19	23	323
Montana:									
General.....	1,902	474	624	804	1,371	385	32	31	923
Blind.....	356	19	295	42	56	18	4	3	31
Nebraska:									
General.....	1,588	727	255	606	2,205	536	46	78	1,545
Blind.....	199	48	91	60	143	61	0	3	79

See footnotes at end of table.

Table 1.—Number of referrals and cases, by agency, fiscal year 1960—Con.

Agency ¹	Referrals				Cases				
	During fiscal year			Re-main-ing at end of year ²	During fiscal year			Re-main-ing at end of year ⁶	
	Total	Accepted for serv-ices	Not accepted for serv-ices ³		Total active load (receiv-ing serv-ices)	Closed from active load			
						Reha-bilita-ted	After reha-bilita-tion plan initi-ated ⁴	Before reha-bilita-tion plan initi-ated ⁵	
Nevada:									
General.....	1,069	199	778	92	346	116	31	15	184
Blind.....	34	9	5	20	40	6	0	2	32
New Hampshire:									
General.....	878	241	632	5	769	185	89	14	481
Blind.....	36	19	8	9	73	13	3	8	49
New Jersey:									
General.....	5,665	1,972	1,972	1,721	4,488	1,362	261	404	2,461
Blind.....	873	228	283	362	525	177	24	9	315
New Mexico:									
General.....	1,574	391	822	361	636	271	24	10	331
Blind.....	203	40	51	112	97	26	7	2	62
New York:									
General.....	28,745	9,143	10,920	8,682	19,251	6,294	559	1,180	11,218
Blind.....	1,194	492	252	450	1,003	271	32	89	611
North Carolina:									
General.....	10,546	5,914	3,479	1,153	13,544	4,821	393	573	7,757
Blind.....	1,411	553	605	253	1,518	403	35	106	974
North Dakota.....	1,910	520	536	854	1,236	366	36	43	791
Ohio:									
General.....	7,678	2,789	1,991	2,898	5,738	1,624	151	244	3,719
Blind.....	1,188	274	716	198	822	160	45	43	574
Oklahoma.....	4,971	2,830	1,201	940	8,019	1,680	226	699	5,414
Oregon:									
General.....	6,072	1,022	2,875	2,175	2,722	759	112	185	1,666
Blind.....	234	49	82	103	158	41	5	2	110
Pennsylvania:									
General.....	25,669	8,538	7,499	9,632	20,297	5,764	960	1,474	12,099
Blind.....	1,573	332	600	641	1,052	250	66	102	634
Puerto Rico.....	8,317	1,756	1,370	5,191	4,932	1,023	79	224	3,606
Rhode Island:									
General.....	2,281	981	346	954	2,253	721	111	8	1,413
Blind.....	110	94	1	15	252	51	10	10	181
South Carolina:									
General.....	7,028	2,119	2,262	2,647	5,172	1,589	137	157	3,289
Blind.....	340	140	145	55	321	103	6	23	189
South Dakota:									
General.....	1,216	351	340	525	1,007	253	31	0	723
Blind.....	343	32	179	132	107	30	4	1	72
Tennessee:									
General.....	10,241	3,084	3,869	3,288	7,039	2,509	219	347	3,964
Blind.....	1,232	305	307	620	841	238	14	38	551
Texas:									
General.....	12,885	3,778	3,558	5,549	10,986	2,478	166	692	7,650
Blind.....	1,127	413	381	333	820	371	10	21	418
Utah.....	2,205	891	727	587	1,916	517	59	43	1,297
Vermont:									
General.....	1,005	260	286	459	768	182	69	41	476
Blind.....	58	19	30	9	62	21	5	2	34
Virginia:									
General.....	15,197	4,324	7,193	3,680	8,779	3,217	216	683	4,663
Blind.....	447	84	106	257	243	67	18	4	154
Virgin Islands.....	110	46	2	62	99	42	3	0	54
Washington:									
General.....	4,533	1,554	1,463	1,516	4,079	990	163	413	2,513
Blind.....	227	89	79	59	217	61	12	7	137
West Virginia.....	15,948	4,849	4,135	6,964	11,157	3,023	96	926	7,112
Wisconsin:									
General.....	7,024	1,997	2,484	2,543	5,647	1,481	138	80	3,948
Blind.....	129	74	23	32	216	65	11	11	129
Wyoming.....	690	180	246	264	432	177	24	9	222

¹ In States with 2 agencies, the State division of vocational rehabilitation is designated as "general," and the agency under the State commission or other agency for the blind is designated as "blind."

² Services declined, services not needed, individual not eligible, individual needing services other than vocational rehabilitation, referred to other agencies, migratory shifting of the individual, etc.

³ Eligibility for rehabilitation not yet determined.

⁴ Closed after rehabilitation plan was initiated; received rehabilitation service but never reached the point of employment because of personal factors, illness, aggravated disability, etc.

⁵ Closed prior to initiation of rehabilitation plan because of indifference of individual, increase in degree of disability, loss of contact, etc.

⁶ In process of rehabilitation on June 30, 1960.

Table 2.—*Vocational rehabilitation grants, 1960, State divisions of vocational rehabilitation*

State or territory	Support grants	Extension and improvement grants	Total
Total.....	\$43,501,816	\$898,760	\$44,400,576
Alabama.....	1,982,496	188	1,982,684
Alaska.....	113,510	5,000	118,510
Arizona.....	337,288	7,643	344,931
Arkansas.....	1,262,873	14,805	1,277,678
California.....	2,774,359	120,190	2,894,549
Colorado.....	554,794	14,343	569,137
Connecticut.....	328,369	15,532	343,901
Delaware.....	139,486	5,000	144,486
District of Columbia.....	232,887		232,887
Florida.....	1,319,128		1,319,128
Georgia.....	2,264,996	32,007	2,297,003
Guam.....	48,575	5,000	53,575
Hawaii.....	184,246	3,083	187,329
Idaho.....	164,162		164,162
Illinois.....	1,973,074	49,041	2,022,115
Indiana.....	463,831	22,669	486,500
Iowa.....	671,221	19,172	690,393
Kansas.....	460,196	13,659	473,855
Kentucky.....	490,888	25,820	516,708
Louisiana.....	1,036,904		1,036,904
Maine.....	222,704	7,981	230,685
Maryland.....	606,650		606,650
Massachusetts.....	712,097	32,178	744,275
Michigan.....	1,268,388	65,943	1,334,331
Minnesota.....	895,842	23,755	919,597
Mississippi.....	596,358		596,358
Missouri.....	652,209	25,182	677,391
Montana.....	171,663	5,768	177,431
Nebraska.....	273,179	8,142	281,321
Nevada.....	45,653	5,000	50,653
New Hampshire.....	84,184		84,184
New Jersey.....	952,350	39,795	992,145
New Mexico.....	190,066	7,059	197,125
New York.....	2,840,544	50,408	2,890,952
North Carolina.....	1,636,128	10,594	1,646,722
North Dakota.....	307,840	5,449	313,289
Ohio.....	797,736	58,773	856,509
Oklahoma.....	1,172,382	19,156	1,191,538
Oregon.....	514,138	5,536	519,674
Pennsylvania.....	3,351,742	47,385	3,399,127
Puerto Rico.....	716,667		716,667
Rhode Island.....	252,460	7,335	259,795
South Carolina.....	768,856	9,000	777,856
South Dakota.....	218,668	4,688	223,356
Tennessee.....	1,265,183		1,265,183
Texas.....	1,422,180	32,063	1,454,243
Utah.....	301,373	7,251	308,624
Vermont.....	152,777		152,777
Virginia.....	1,193,475		1,193,475
Virgin Islands.....	19,429		19,429
Washington.....	804,954	23,160	828,114
West Virginia.....	1,126,152	16,507	1,142,659
Wisconsin.....	1,066,450	22,500	1,088,950
Wyoming.....	98,056	5,000	103,056

Table 3.—Vocational rehabilitation grants, 1960, State commissions or agencies for the blind.

State or Territory	Support grants	Extension and improvement grants	Total
Total.....	\$5,570,206	\$88,411	\$5,658,617
Arizona.....	84,454	1,914	86,368
Connecticut.....	41,950	3,840	45,790
Delaware.....	36,380	-----	36,380
Florida.....	439,000	-----	439,000
Hawaii.....	30,230	2,056	32,286
Idaho.....	14,724	-----	14,724
Indiana.....	55,545	-----	55,545
Iowa.....	294,129	4,486	298,615
Kansas.....	133,095	3,668	136,763
Louisiana.....	171,979	-----	171,979
Maine.....	74,062	-----	74,062
Massachusetts.....	171,060	8,508	179,568
Michigan.....	118,229	-----	118,229
Minnesota.....	154,722	-----	154,722
Mississippi.....	304,603	-----	304,603
Missouri.....	239,004	-----	239,004
Montana.....	47,418	-----	47,418
Nebraska.....	77,289	4,071	81,360
Nevada.....	12,448	-----	12,448
New Hampshire.....	24,215	1,250	25,465
New Jersey.....	204,075	8,400	212,475
New Mexico.....	54,547	-----	54,547
New York.....	410,738	20,131	430,869
North Carolina.....	481,170	-----	481,170
Ohio.....	327,495	6,893	334,388
Oregon.....	87,177	-----	87,177
Pennsylvania.....	389,990	8,816	398,806
Rhode Island.....	52,544	-----	52,544
South Carolina.....	60,511	-----	60,511
South Dakota.....	56,213	1,172	57,385
Tennessee.....	330,546	-----	330,546
Texas.....	286,792	10,206	296,998
Vermont.....	31,450	-----	31,450
Virginia.....	86,880	-----	86,880
Washington.....	87,724	-----	87,724
Wisconsin.....	97,818	3,000	100,818

Saint Elizabeths Hospital

DURING THE YEAR just closed, problems of understaffing and overcrowding have persisted, the admission rate has increased substantially, and a number of vacancies have existed on the medical staff. Nevertheless, thanks to the devotion and industry of the entire personnel of the hospital, the care of the patients has continued to be satisfactory, and the various activities of the hospital have been carried on to the best of everyone's ability. Every attempt has been made to achieve the high standard of care to which the hospital is dedicated. The so-called tranquilizing drugs which are coming on the market in ever-increasing numbers have been utilized to a very substantial extent and have proved themselves valuable in the institutional care of mental patients. The program of open wards and patient self-government has been extended and the results have been decidedly beneficial in accomplishing the aim of resocializing and rehabilitating the patients. The load of aged and infirm patients, however, continues to increase, and raises ever-new problems as to the role of the mental hospital in caring for this particular group.

In the last annual report comment was made upon the growing competition of the States for psychiatric personnel. Many of the States offer far greater inducements to trained personnel than does the Federal Government, not only in the line of salaries but of what may be termed "fringe benefits," such as housing, food, and protection from suits for malpractice. During a large part of the year there have been as many as ten vacant medical staff positions, so it is encouraging to report that the prospects for the coming year are brightening. Nearly all of the third-year residents have elected to remain on the staff, and several other well-trained physicians have been recruited. It is our hope that this situation indicates a possible change in the tide.

One of the risks of prediction appears in the statement of last year's annual report, "It appears that some stability of discharges and admissions is being achieved." At the time that statement was made the statistics justified it. However, during the past year, although the number of discharges to the community showed a very slight increase, the number of admissions increased startlingly to 1,894. This represented an increase of 287, and was the largest number of admissions in a single year since 1945. Of these admissions, 540 or 20.8 percent had previously been patients in Saint Elizabeths Hospital or similar institutions. During the past few years an increase in the readmission rate has been noted, but it is not clear that this represents the total reason for the tremendous rise in admissions.

We have mentioned previously what appears to be an abuse of the writ of habeas corpus. In fiscal year 1959, for example, there were 133 cases in which the hospital either had to show cause why a writ should not be issued or produce the patient in court. During the year just closed this number has more than doubled. One hundred and fifty-three orders to show cause were issued and 121 writs, a total of 274. The fact that the vast bulk of these petitions was unfounded is suggested by the fact that only three patients were discharged and two conditionally released. The amount of time involved by the physicians and employees who are required to accompany the patient to court or to testify is inordinate, and constitutes a great burden on the hospital. During the month of June 1960, for example, the three physicians in the John Howard Pavilion spent 119 hours in court, that is an average of one work-week each.

It is a pleasure to report that in September 1959 the new John Howard Pavilion, the maximum security section of the hospital, was put into operation. The move of the prisoner patients from the old Howard Hall was accomplished without incident, with the great assistance of the United States Marshal's Office and the District of Columbia Department of Corrections. Eleven of the wards have been put into operation since the opening of the building, and the last one will be opened shortly after the first of July. This has relieved entirely, at least for the moment, the necessity of establishing a waiting list. The existence of this waiting list has been a source of great concern to the hospital and to the courts of the District and the latter have been most understanding and tolerant of the demands of our lack of space. One cannot predict how long the happy state of prompt admission will last, as the number of prisoner patients being sent to the hospital either for observation, found incompetent for trial, or found not guilty by reason of insanity seems to be showing a steady rise.

Various other agencies of the Government, notably the Health Department, the Public Welfare Department, and the Rehabilitation

Division of the District have been most helpful, as have the Veterans Administration and the Department of Justice. Further plans for even closer cooperation are being worked out. During the year a great deal of time and energy have been consumed by attempting to carry out the demand of the Bureau of the Budget that more patients be transferred from Saint Elizabeths Hospital to other agencies, notably D.C. Village and Glenn Dale of the District of Columbia, the Public Health Service and the Veterans Administration. The policy of the hospital for years has been to transfer to the D.C. Village those patients who are willing to go and who show a reasonable prospect of conforming to the various requirements of that institution. There have been numerous conferences and visits to the respective institutions already mentioned, but numerous obstacles have been encountered, so that in spite of the labors of the mountain hardly more than a mouse has so far been produced. The work will continue, but it should be borne in mind that human values as well as mere statistical logistics enter into consideration in a problem of this sort.

During the year visitors from no less than 24 foreign countries honored the hospital. Such visits are always a source of stimulation and gratification to the staff.

Throughout its history the hospital has been acutely aware of the fact that although the care of the patient must always come first, the institution has an obligation as well in the lines of education, both of personnel and of the community, and of research. These programs have been prosecuted vigorously during the year. In the field of psychiatry the George Washington University and Howard University Medical Schools have utilized the facilities of the hospital for the training of their medical students. The hospital is likewise approved for a three-year residency in psychiatry. In the field of general medicine the institution is the only public mental hospital in the country which is approved for rotating internship. It is likewise fully accredited by the Joint Commission on the Accreditation of Hospitals. Training proceeds in general medicine, surgery, pathology, and radiology. There are also internships, residencies, and planned field work in psychology, social work, occupational therapy, and clinical pastoral work. Instruction in nursing is carried on, on both the undergraduate (by affiliation with training schools) and graduate levels.

In the field of research the hospital is happy to report progress in the work of the Joint National Institute of Mental Health—Saint Elizabeths Hospital Clinical Neuropharmacology Center. A large exhibit of the work done in this Center was shown at the meeting of the American Psychiatric Association in Atlantic City in May. Under the auspices and advice of the Hospital Research Committee, 20 projects were commenced during the year.

Division of Clinical Services

CLINICAL BRANCHES

The general care and treatment of the patients is carried on by three clinical branches, each of them subdivided into services. In addition a Medical and Surgical Branch is charged with the acute medical and surgical treatment of all patients and emergency attention to employees. There are three admission services. Civilian patients under 64 years of age are admitted directly to the Dix Pavilion. Those over 64 are admitted directly to the Geriatric Building. Sex psychopaths and male prisoners under charges or sentence, or found not guilty by reason of insanity are admitted directly to the John Howard Pavilion. There is a steady increase in the number of elderly and infirm patients, and there seems to be no reason to expect this to diminish unless other suitable facilities of a non-psychiatric nature can be found in the community. With the transfer of the patients from the old Howard Hall to the new John Howard Pavilion, the West Side Service was abolished, at least temporarily, with the other wards being assigned between the West Lodge and Detached Services. As a result those two services are altogether too large, and as soon as possible the West Side Service will be reinstituted. The number of voluntary admissions continues without much change—191 during the year just closed. It is unfortunate that this provision of law is not used more, as the present laws relating to the commitment of mental patients are unduly cumbersome and unfair to the patient. During the year, indeed, a decision of the Court of Appeals has made the procedure even more complicated by providing that every patient whose commitment is contemplated may appear in court to contest his commitment. This is in addition to the right of jury trial and the use of habeas corpus proceedings. It is to be hoped that some time in the future the District of Columbia may have commitment laws which are at least as humane as those of most of the other States. The tranquilizing drugs have been used copiously. It is almost impossible to contemplate a reversion to the "good old days" before tranquilizers were known. In addition, some of the so-called psychic energizer drugs have been utilized, but as yet there is much to be desired in the drug treatment of the depressions. Electro-shock continues to be used sparingly. Group therapy is used widely and individual psychotherapy wherever possible in selected cases. The requirements of time obviously limit the use of this latter modality. As a result of the increased admissions the number of patients actually in the hospital showed an increase at the end of the fiscal year of 97, the total being 7,120. A large number of volunteer groups have been very faithful in visiting the wards and providing entertainment for the patients there as well as at the Red Cross House and Hitchcock Hall. There has

been increasing cooperation with the various community agencies in this regard.

MEDICAL AND SURGICAL BRANCH

The work of this Branch as in the past continues to be unusually varied and of high efficiency. The neurological service has been expanded, and it is expected that in the near future the employee health service will materialize through contract with the Public Health Service. During the year a total of 2,377 patients were treated in the Medical and Surgical Service, with a total of 85,578 hospital days. In addition over 55,000 clinic visits were recorded. A radiation officer and a sanitary engineering officer have been appointed.

NURSING BRANCH

This Branch, in spite of shortages, notably in the graduate nurse field, has rendered yeoman service to the care of patients. An active program of in-service training in all types of ward personnel is carried on, and 13 schools of nursing and the Navy Hospital Corps affiliate with the Hospital. Training on a postgraduate level is provided for graduate students from Catholic University. The general shortage of graduate nurses throughout the country is reflected in the figures of the hospital, but the number has held steady since last year, graduate nurses totaling 252. No male graduate nurses have been available for employment since 1956. It is to be hoped that this shortage may be remedied before long.

PSYCHOTHERAPY BRANCH

This Branch embraces individual and group psychotherapy, psychodrama, dance and art therapy. The Director of this Branch is also the coordinator of professional training. The various types of professional training have been expanded during the year, and the work has brought a closer relationship among the various professional groups.

PSYCHOLOGY BRANCH

Four research projects are under way. During the year one doctors' thesis was completed under the supervision of the Branch. Speech therapy has been added to the armamentarium of the Psychology Branch. There were 111 teaching sessions, and 3,777 tests were given by the Branch during the year.

RECREATIONAL THERAPY BRANCH

The program of this Branch continues to be very active, providing ward parties and entertainments, the latter being held on the wards, in the Red Cross Building, and in Hitchcock Hall. Patients have been given the courtesy of using the swimming pool at Bolling Air

Force Base. The Branch has recently been assigned the duty of undertaking coordination of ward parties in order to avoid unnecessary duplication. Community participation in the whole program has been most gratifying.

OCCUPATIONAL THERAPY BRANCH

The expansion and organization of this Branch have continued and widened. An educational program for patients carried on by volunteers is a notable activity. In addition, pre-vocational testing and pre-industrial therapy have been developed and carried out. All of these forms of therapy are conducted by the referral of physicians. Thirteen student interns were under instruction during the year.

VOLUNTEER SERVICES BRANCH

Four hundred and fifty-seven volunteers per month contributed a total of 21,687 hours of service during the fiscal year—a most astonishing record, and a gratifying testimonial to the interest which the community exhibits in the welfare of the patients at the hospital. The variety of groups and individuals is too wide to enumerate. The American Red Cross, various church groups, and community service groups have been most generous in their attendance and in their interest in the patients. The hospital is deeply appreciative of what they have done.

SOCIAL SERVICE BRANCH

Considerable expansion of the Branch has taken place during the year. One thousand four hundred and seventy-eight patients were served, and a total of over 21,000 interviews were held by the social workers. A nursing follow-up project of the D.C. Health Department is being conducted under a grant from the National Institute of Mental Health, and 47 patients have been referred. The Vocational Rehabilitation Division of the District of Columbia Government is planning to increase to six its total number of rehabilitation counsellors, who work in close cooperation with the Social Service Branch. One aspect of the work of sending patients to the District of Columbia Welfare and Health Departments has been emphasized during the year, namely, the need of the District for a larger number of available foster and nursing homes especially for older patients and for adequate support of such patients as may be placed there.

CHAPLAIN SERVICE BRANCH

This Branch, under Jewish, Protestant, and Roman Catholic chaplains, carries out religious ministry to the patients, both in chapel services and on the wards. New patients are visited, and such other patients as request the services of the chaplains of their faith. Training

is carried on both for Protestant and Roman Catholic clergy and for theological students. The community clergy have been most helpful in participating in special services. The Director of Protestant Chaplain activities during the year served as the Chairman of the Mental Health Week Committee early in May. During that week probably at least 5,000 or more persons visited the hospital, thus increasing their understanding of the aims and activities of the institution and of mental illness in general.

MEDICAL RECORDS BRANCH

No hospital is complete without adequate records. Indeed, some of the more cynical are inclined to think that the accrediting bodies are more interested in records than they are in the care of the patients. The Branch has functioned efficiently and during the year installed open-shelf filing with terminal digit numbering.

LIBRARY SERVICES

The Medical Library provides library service to the medical staff, both by making accessible volumes in the hospital library and obtaining others through inter-library loan. The library gained 1,363 accessions during the year, the total number of accessioned volumes now amounting to 21,000, besides over 18,000 pamphlets. Some comment was made last year about the amount of "red tape" involved in obtaining inter-library loans. Particular thanks, however, are due to the Veterans Administration for their very generous and continuing cooperation. It is expected that eventually the proposed wings to be added to the Administration Building will provide further space, even though that too may not be entirely adequate. The Patients' Circulating Library now has over 64,000 volumes and gained nearly 4,000 during the year, largely by donations. In addition there are numerous classes in bookbinding, typing, shorthand, and languages.

LABORATORY BRANCH

This Branch continues to grow in activity and efficiency. An isotope unit is now being installed, and much new equipment has been obtained, much of it on Government surplus. Over 180,000 tests were carried out during the year, an increase of 10,000 from 1959. Autopsies continue at a reasonable rate, the rate during 1960 being 40.8 per cent, that is 201 autopsies.

Division of Administration

It would be gratifying if space permitted an enumeration of the various accomplishments of the branches and sections in this Division, such as financial, personnel, construction, engineering, grounds,

laundry, dietary, and maintenance. With the increasing number of patients and with the increasing complexity of governmental operations all of these sections have been more than busy. They have, at the same time, been highly efficient in their accomplishments. Much is involved in the day-to-day maintenance of an institution of this size, but in addition various improvements have been carried out and some reconstruction. Detailed plans have been developed for the proposed Continued Treatment Building No. 9 and a very considerable amount of preliminary work has been done for the development of the Rehabilitation Building which is contemplated.

Needs of the Hospital

Some of the buildings are old and replacements are needed. Whether eventually the increasing demands of the patient load will demand an expansion of the hospital is at the moment an open question. Even more important, however, than buildings is the need of revising the salary scale and the perquisites for professional personnel. This is essential if the Federal Government is to approach meeting the competition of the various States. The support of the Secretary has been deeply appreciated in securing further recognition of the vital Federal role of the hospital.

Table 1.—*Movement of patient population, fiscal year 1960*

	Total	Male			Female		
		White	Colored	Total	White	Colored	Total
Total number under care and treatment, fiscal year 1960.....	9,451	2,621	2,098	4,719	2,713	2,019	4,732
Remaining on rolls, June 30, 1959.....	7,557	2,114	1,599	3,713	2,205	1,639	3,844
Admitted during fiscal year 1960.....	1,894	507	499	1,006	508	380	888
Total discharged and died.....	1,605	491	337	828	477	300	777
Discharged.....	1,101	330	246	576	316	209	525
Conditions on discharge:							
Recovered.....	72	15	24	39	13	20	33
Social recovery.....	352	60	54	114	128	110	238
Improved.....	452	161	96	257	132	63	195
Unimproved.....	181	78	48	126	42	13	55
Worse.....	0	0	0	0	0	0	0
No mental disorder.....	42	14	24	38	1	3	4
Unknown.....	2	2	0	2	0	0	0
Died.....	504	161	91	252	161	91	252
Remaining on rolls, June 30, 1960.....	7,846	2,130	1,761	3,891	2,236	1,719	3,955
Change in sex and color.....	0	+4	-1	+3	-2	-1	-3
Adjusted on rolls, June 30, 1960.....	7,846	2,134	1,760	3,894	2,234	1,718	3,952
Absent on visit or elopement.....	726	114	132	246	263	217	480
In hospital, June 30, 1960.....	7,120	2,020	1,628	3,648	1,971	1,501	3,472

Table 2.—Consolidated statement of movement of patients, by classification, fiscal year 1960

	Reimbursable patients										Nonreimbursable patients																		
	Total	Subtotal	Bureau of Indian Affairs	D.C. residents	D.C. voluntary	U.S. Soldiers' Home	Veterans' Administration	Other	Subtotal	Army	Bureau of Employees Compensation	Immigration and Naturalization Service	Bureau of National Homes	Canadian Insane	Canal Zone	Coast Guard	D.C. nonresidents	Federal reservations	Foreign Service	Interned aliens	Marine Corps	Navy	D.C. prisoners (sexual psychopaths)	D.C. prisoners	Military prisoners	U.S. prisoners	Public Health Service	Virgin Islands	
On rolls, June 30, 1959.....	7,557	6,108	61	5,370	229	51	395	2	1,449	205	2	2	3	55	16	15	241	23	12	4	18	74	49	447	24	84	37	138	
Admitted to June 30, 1960.....	1,894	1,460	0	1,234	191	18	10	7	434	0	---	---	0	0	---	---	1	72	10	---	---	0	0	16	318	0	14	2	1
Separated, fiscal year 1960.....	1,605	1,082	3	803	185	22	65	4	523	8	---	---	1	1	---	---	241	56	13	---	1	5	2	167	1	15	1	10	
Deaths.....	1,504	458	3	405	15	6	29	0	46	8	---	---	1	1	---	---	13	3	1	---	1	4	0	6	1	3	1	3	
Discharges.....	1,101	624	0	398	170	16	36	4	477	0	---	---	0	1	---	---	228	53	12	---	0	1	2	161	0	12	0	7	
On rolls, June 30, 1960.....	7,846	6,486	58	5,801	235	47	340	5	1,360	197	2	2	2	53	16	15	1	39	9	4	17	69	63	598	23	83	38	129	
Changes in classification.....	0	-266	---	-307	-7	+1	+46	+1	+266	---	---	---	---	---	---	---	+274	-1	-1	---	---	---	---	-4	---	-2	---	---	
Adjusted on rolls, June 30, 1960.....	7,846	6,220	58	5,494	228	48	386	6	1,626	197	2	2	2	53	16	15	275	38	8	4	17	69	63	594	23	81	38	129	
On visit or elopement, June 30, 1960.....	726	634	---	511	77	5	37	4	92	1	---	---	---	1	---	---	33	7	2	---	---	---	1	28	---	1	---	---	
In hospital, June 30, 1960.....	7,120	5,586	58	4,983	151	43	349	2	1,534	196	2	2	2	52	16	15	242	31	6	4	17	68	45	566	23	80	38	129	
Total treated, fiscal year 1960.....	9,451	7,568	61	6,604	420	69	405	9	1,883	205	2	2	3	55	16	15	242	95	22	4	18	74	65	765	24	98	39	139	

American Printing House for the Blind

AS THE OFFICIAL schoolbook printery for the blind in the United States, one of the principal functions of the American Printing House for the Blind, in Louisville, Kentucky, is the provision of special educational books and supplies for the blind school children throughout the country through the Federal Act "To Promote the Education of the Blind." This act, originally passed in 1879, authorizes an annual appropriation to the Printing House for this purpose. Allocations of books and materials are made on a per capita basis. Only those pupils may be registered whose vision comes within the accepted definition of blindness as follows: "Central visual acuity of 20/200 or less in the better eye with correcting glasses, or a peripheral field so contracted that the widest diameter of such field subtends an angular distance no greater than 20 degrees."

The Printing House maintains large catalogs of Braille books, Talking Books, recorded tapes, Braille music publications, large-type texts, and tangible apparatus. A rich collection of educational material is thereby provided for the kindergarten through the high school grades. A total of 6,656 blind pupils was enrolled in the residential schools for the blind and 6,835 in public schools—a total of 13,491 blind pupils being served by the Printing House—for the fiscal year ending June 30, 1960.

During the 1960 fiscal year, Braille books, educational periodicals, and music made up approximately 42.5 percent of the materials required by the schools; Braille slates, Braillewriters, maps, and other mechanical devices about 22 percent; Talking Books about 3.5 percent; recorded educational tapes about 1 percent; and large-type books about 28 percent. Approximately 7 percent was used for miscellaneous items.

Gallaudet College

GALLAUDET COLLEGE is devoted to the education of deaf persons who because of their handicap would have difficulty in schools and colleges for hearing students. The college, located in Washington, D.C., is the world's only college for the deaf. It was accredited in May 1957 by the Middle States Association of Colleges and Secondary Schools. In addition to education, it conducts research into the educational problems of deafness. It consists of the Kendall School and the college proper.

KENDALL SCHOOL

Primary and secondary schooling is provided for deaf children in the Kendall School, which also serves as a laboratory school for teachers training in the college. The oral method of instruction is used for all pupils except those who make no progress under it. Enrollment last year was 90 of which 60 came from the District of Columbia.

GALLAUDET COLLEGE

The college, established in 1864 by act of Congress, offers the associate's degree after 2 years of study, and a bachelor's degree in the liberal arts and sciences. The Preparatory Department provides the senior year of high school for students who are unable to obtain it in the State schools for the deaf. The Graduate Department of Education offers a master's degree and a professional diploma in the education of the deaf to students with normal hearing, and offers a 4-week training course to vocational counselors who wish to acquire a deeper understanding of deaf persons. Total enrollment in the college last year was 385, with students from 45 States, the District of Columbia, and 6 foreign countries. In addition, there were in attendance throughout a part of the school year 73 students enrolled in (a) summer school graduate courses, and (b) courses in "orientation to the deaf" for vocational rehabilitation counselors, welfare workers, etc.

Howard University

HOWARD UNIVERSITY, located in the District of Columbia, was chartered by act of Congress on March 2, 1867. The university offers programs of higher education on the undergraduate, graduate, and professional levels. Undergraduate students are registered in the college of liberal arts; graduate students seeking the master's and doctor of philosophy degrees are registered in the graduate school; professional students are registered in the colleges of medicine, dentistry, pharmacy, and the schools of engineering and architecture, music, social work, law, and religion. (The school of religion receives no support from Federal funds.)

The educational program of Howard University is conducted in keeping with the democratic purposes of the land-grant colleges and State universities with the low tuition fees and living costs which characterize these State institutions and with an educational program resting upon and permeated by the content and spirit of a general or liberal education. The university admits students of both sexes, from every race, creed, and national origin, but it accepts and undertakes to discharge a special responsibility for the admission and training of Negro students.

In June 1960 President Mordecai W. Johnson retired after 34 years as President of the University. The Board of Trustees elected as his successor Dr. James M. Nabrit, Jr., Dean of the Law School and Secretary of the University. Dr. Nabrit had been a member of the faculty at Howard University for 24 years.

ENROLLMENT OF STUDENTS

During the school year 1959-60, the university served a total of 7,402 students as follows: 5,653 during the regular academic year and 1,749 in the summer session of 1959. The total net enrollment, excluding all duplicates, was 6,507, distributed in the 10 schools and

colleges as follows: liberal arts, 3,122; graduate school, 726; engineering and architecture, 898; music, 309; social work, 129; dentistry, 644; medicine, 355; pharmacy, 161; law, 106; and religion, 57. This enrollment included a larger body of Negro professional students than in all universities of public support in all the Southern States combined.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Of a total of 6,003 students seeking degrees, 5,142 or 85.6 percent came from 45 States and the District of Columbia, while 861 students or 14.4 percent came from outside the continental United States including 2 possessions of the United States, 48 foreign countries and 17 island possessions of the British, French, and Dutch West Indies.

The 5,142 students from the United States were distributed as follows: New England States, 82; Middle Atlantic States, 825; East North Central States, 294; West North Central States, 88; South Atlantic States, 3,122; East South Central States, 384; West South Central States, 291; Mountain States, 14; and Pacific States, 41.

The 861 students from outside the continental United States came from 48 foreign countries, including Canada, 2 countries in the West Indies, 3 countries in Central America, 2 countries in South America, 10 countries in Europe, 14 countries in Africa, 16 countries in Asia, and 17 island possessions of the British, French, and Dutch West Indies.

VETERANS

There were 633 veterans enrolled at the University during the 1959-60 school year. They were distributed among the 10 schools and colleges as follows: 221 in liberal arts, 50 in the graduate school, 8 in music, 123 in engineering and architecture, 25 in pharmacy, 96 in medicine, 62 in dentistry, 13 in social work, 30 in law, and 5 in religion.

ARMY AND AIR FORCE ROTC

Army ROTC—There were 440 students enrolled in Army ROTC during the school year 1959-60. Of this number, 202 were in the first year course, 142 were in the second year, 61 were in the third year, and 35 were in the fourth year. During the year, 31 students were commissioned as reserve officers in the Army.

Air Force ROTC—There were 388 students enrolled in Air Force ROTC. Of this number, 215 were in the first year course, 142 were in the second year, 12 were in the third year, and 18 were in the fourth year. During the year, 9 students received commissions as reserve officers in the Air Force. In addition, seven students who

were enrolled in five-year academic programs, completed all of their ROTC work and were scheduled to be commissioned upon graduation.

THE FACULTY

During the 1959-60 school year, a total of 653 teachers served the university. Of this number, there were 374 full-time teachers and 279 part-time teachers. The full-time equivalent of the teaching staff was 443.80. Of this number, 390.85 were teaching in the rank of instructor and above.

From its establishment in 1867, the university has had on its faculty learned and able men and women, selected on the basis of their competence and character, without regard to sex, race, creed, color, or national origin. It was a major purpose of the founders of the university, however, to employ Negro teachers, among others, on every faculty. The Negro members of these faculties constitute a larger group of professional teachers than all the Negroes so employed in all other American universities combined. Many of the outstanding Negroes in the public life of America have served in the past on faculties of the university. Such persons include the founder and operator of the first blood plasma bank, the first Negro governor of an American possession, the first Negro in the Secretariat of the United Nations, and the first Negro member of the United States Court of Appeals.

THE BUILDING PROGRAM

Construction was continued on the new auditorium-fine arts building, which was scheduled to be completed during the fall of 1960 and put into operation at the beginning of the second semester in the 1960-61 school year. This building will provide an auditorium for 1,500 persons, a laboratory little theater having a capacity of 320 persons, classrooms, and other facilities for the entire school of music, the department of art, and the department of drama.

Plans were completed for the construction of the home economics building, preparatory to beginning construction during the 1960-61 school year.

GRADUATES

During the 1959-60 school year, there were 680 graduates from the ten schools and colleges of the university. These graduates came from 31 States, the District of Columbia, the Virgin Islands, Puerto Rico, 22 foreign countries, and 12 island possessions of the British and Dutch West Indies. These 22 foreign countries included Canada, Panama, British Guiana, Cuba, 7 countries in Africa, 6 countries in Asia, and 5 countries in Europe.

The 680 graduates were distributed among the 10 schools and colleges as follows: liberal arts, 329; engineering and architecture, 61; music, 19; the graduate school, 50; social work, 48; medicine, 69; dentistry, 49; dental hygiene, 7; pharmacy, 17; law, 26; and religion, 5. Three honorary degrees were also conferred.

Since its establishment in 1867, Howard University has graduated 21,770 persons. The large majority by far of these graduates have been Negroes. Their number includes a larger body of graduates in medicine, dentistry, pharmacy, engineering, music, law, and social work than the entire output of Negro professional graduates in all the publicly supported colleges and universities in the South.

The largest number of graduates have entered the field of teaching, primarily in the Southern States. Three thousand and eighty-four have entered the practice of medicine; 2,426 have entered the practice of dentistry and dental hygiene; 2,409 have entered the field of law; 797 have entered the ministry; 875 have entered the field of pharmacy; 784 have gone into engineering and architecture; and 479 have entered the field of social work. A large but undetermined number is engaged in government activities.

SERVICE IN FOREIGN COUNTRIES

Teachers and students from Howard University continued to render distinguished service in foreign countries. The countries where they have gone include Burma, Brazil, Ceylon, Egypt, Ethiopia, West Germany, India, Indonesia, Israel, Iraq, Italy, Kenya, Liberia, British Guiana, the Sudan, Japan, and Vietnam. Fulbright scholars from Howard University have served in Egypt, Ghana, Iraq, Japan, Norway, Sweden, Denmark, Italy, France, Greece, England, and India.

Government officials both in the United States and in foreign countries have frequently indicated that they found the services of members of the faculties and students to be of great value to their country and its interests abroad.

During the 1959-60 year a number of members of the staff served in various capacities. A member of the staff of the Department of Government was engaged in a research mission on Communist infiltration for the Southeast Asia Treaty Organization. The head of the Department of Home Economics was a delegate to the United Nations Conference on Human Rights in Geneva. A member of the staff of the Department of Architecture served on the staff of the United States Operations Mission to the Sudan.

The Dean of the School of Law, for the second successive year, was a member of the United States delegation to the International Labor Organization Conference in Switzerland. With regard to Dr. Nabrit's services there, the Assistant Secretary of Labor wrote as follows: "He represented the United States on the substantive com-

mittee of the Conference concerned with the question of Consultation and Cooperation Between Public Authorities and Employers and Workers Organizations at the Industrial and National Levels. Dr. Nabrit did an outstanding job in this committee, where he was most effective in presenting and explaining the United States viewpoint. In addition, he made a very favorable impression on his colleagues, and all of this redounded to the credit of the delegation as a whole."

It is also to be noted that at the invitation of the Department of State, the Howard University Choir, in June 1960, began an 80-day tour of 18 Latin American nations, under the auspices of the International Cultural Exchange Service.

These technical and professional services not only contribute specifically to the success of programs of our Government in foreign lands, but the spiritual and good-will effects of these representatives from Howard are major assets in our relationships with Asian and African peoples. They serve the cause of democracy around the world.

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